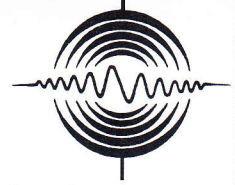


BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC.

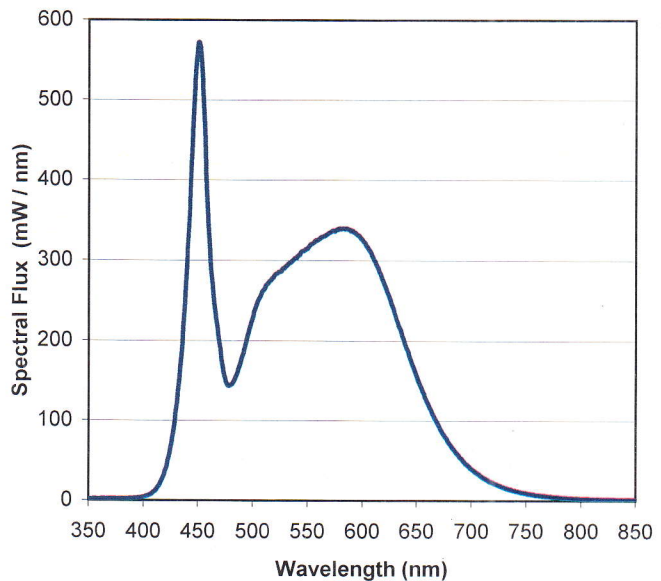
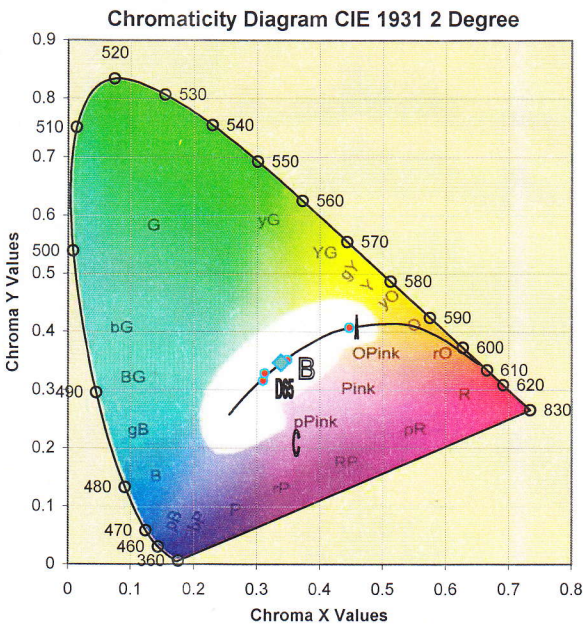
1618 HEADLAND DR.
 FENTON, MO 63026
 (636) 343-6006
 (636) 343-6051 FAX



BALLABS CERTIFIED TEST REPORT NO.: 20680.0 DATE 12/10/18
 PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
 DESCRIPTION: 1-384 LED 12.5" DIA ARRAY HIGH BAY LUMINAIRE
 CHARCOAL PLASTIC HOUSING w/FROSTED ACRYLIC LENS
 2 ADVANCE #XI095C275V054BSS1 @ 2400 mA
 CATALOG NBR: ***
 LAMP TYPE : LUMASMART 5000K 80CRI LM561C S5 FLUX

INPUT VOLTAGE (V)	120.03
INPUT CURRENT (A)	1.6292
INPUT WATTS (W)	195.0300
POWER FACTOR	0.9973
THDv (%)	0.219
THDi (%)	5.397
LUMINOUS EFFICACY-LPW	110.7
LUMINOUS FLUX- LUMENS	21599
CHROMA x	0.3382
CHROMA y	0.3472
CHROMA u	0.2085
CHROMA v	0.4815
DELTA uv (Duv)	0.0006
CORR COLOR TEMP (K)	5261
COLOR REND INDEX (RA)	84.36
COLOR REND INDEX (R9)	12.7

Wavelength (nm)	Spectral Flux mW/nm	Wavelength (nm)	Spectral Flux mW/nm
350	1.6167	610	302.6579
360	1.7657	620	270.5130
370	1.9520	630	233.2067
380	1.8793	640	193.1601
390	2.1888	650	155.6182
400	4.0904	660	122.4827
410	10.9755	670	93.6080
420	37.2620	680	71.0821
430	113.6617	690	53.1984
440	299.1110	700	39.4890
450	567.1601	710	29.4032
460	336.1939	720	21.7236
470	193.0474	730	15.9410
480	144.3045	740	11.7457
490	177.5555	750	8.7357
500	228.3897	760	6.5080
510	263.0469	770	4.9308
520	281.1230	780	3.6228
530	291.5552	790	2.7816
540	302.5098	800	2.1712
550	314.0821	810	1.6021
560	325.8026	820	1.2696
570	334.1657	830	1.0392
580	338.9799	840	0.8129
590	335.7633	850	0.6529
600	325.4083		



Data collected per LM79-08 using a Labsphere integrating sphere and 2100 spectroradiometer. Calibration of the spectroradiometer-sphere is traceable to the National Institute of Standards and Technology.



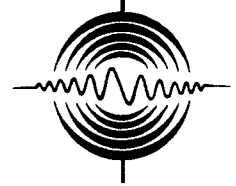
Kelly C. Lerbs

Kelly C. Lerbs
 Vice President

NVLAP LAB CODE 200921-0

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BALLABS REPORT NO. : 20680.0 I DATE: 12/11/18
PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
DESCRIPTION: 1-384 LED 12.5"DIA ARRAY HIGH BAY LUMINAIRE
CHARCOAL PLASTIC HOUSING w/FROSTED ACRYLIC LENS
2 ADVANCE #XI095C275V054BSS1 @ 2400mA
CATALOG NO.: ***
LED : LUMASMART 5000K 80CRI LM561C S5 FLUX

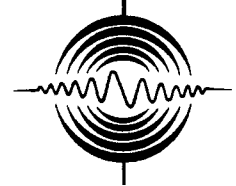
ELECTRICAL MEASUREMENTS

ELECTRICAL CHARACTERISTICS - INPUT TO DRIVER

	VOLT	AMPS	WATTS
Line	276.99	.7172	194.52
	PF	THD _v	THD _i
	0.9791	.2860	8.2427

The fixture was mounted and energized within a 25 degree C environment. The electrical measurements were taken once the sample luminaire reached thermal equilibrium.

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BALLABS REPORT NO. : 20680.0 I DATE: 12/11/18
PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
DESCRIPTION: 1-384 LED 12.5"DIA ARRAY HIGH BAY LUMINAIRE
CHARCOAL PLASTIC HOUSING w/FROSTED ACRYLIC LENS
2 ADVANCE #XI095C275V054BSS1 @ 2400mA
CATALOG NO.: ***
LED : LUMASMART 5000K 80C

LM80 Test Ref: SAMSUNG REPORT #SLED-16-013

IN-SITU TEMPERATURE MEASUREMENT

Tested in Accordance with Standard UL1598-2008

ELECTRICAL CHARACTERISTICS

	VOLT	AMPS	WATTS	PF	THD _v	THD _i
INPUT LINE:	120.04	1.6551	198.14	.9972	.2269	5.3014
DRIVER 1 LOAD:	36.272	2.3907	86.715	1.000		
DRIVER 2 LOAD:	36.948	2.4131	89.163	1.000		

TEMPERATURES:

(DEGREES C)

TC#1	ROOM AMBIENT	25.0
TC#2	LED DRIVER #1 TMP _{ps}	74.6
TC#3	LED DRIVER #2 TMP _{ps}	76.1
TC#4	LED1 ARRAY #1 LED#D46	83.8
TC#5	LED2 ARRAY #1 LED#D66	82.1
TC#6	LED3 ARRAY #1 LED#D374	78.4

Location of led array & driver thermocouples determined per LM80 data & manufacturer's specifications. All thermocouples attached per UL1598. Temperatures are offset to 25 deg C ambient as described in UL1598.



NVLAP LAB Code 20921-0

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BALLABS REPORT NO. : 20680.0 I

DATE: 12/11/18

PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO

DESCRIPTION: 1-384 LED 12.5" DIA ARRAY HIGH BAY LUMINAIRE

CHARCOAL PLASTIC HOUSING w/FROSTED ACRYLIC LENS

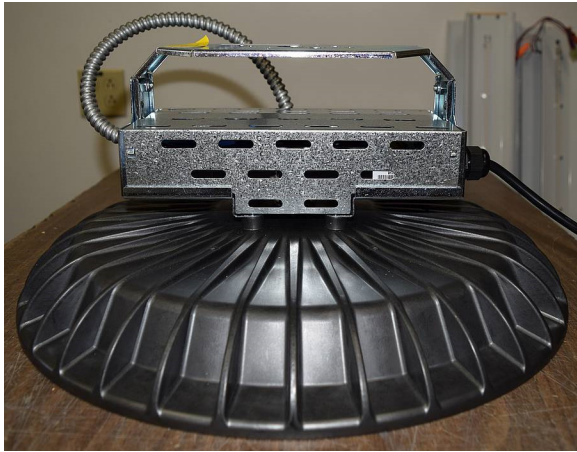
2 ADVANCE #XI095C275V054BSS1 @ 2400mA

CATALOG NO.: ***

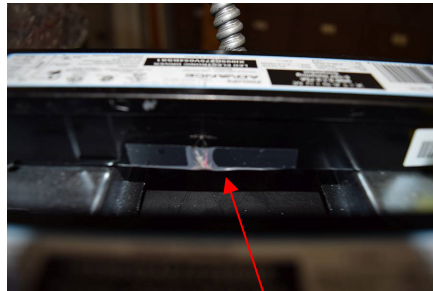
LED : LUMASMART 5000K 80C

IN-SITU TEMPERATURE MEASUREMENT

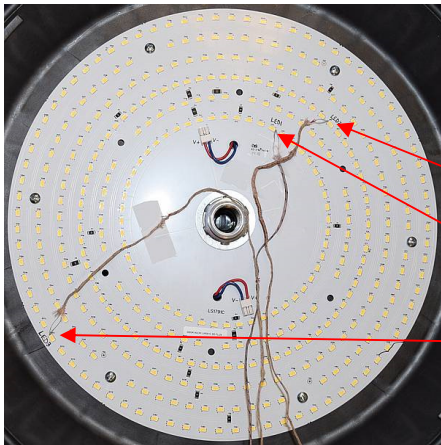
LED Thermocouple Locations Photographs



Driver #1 TMP_{ps}-On Face



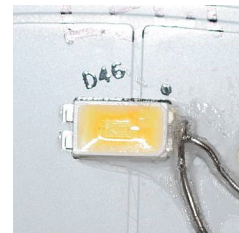
Driver #2 TMP_{ps}-On Face



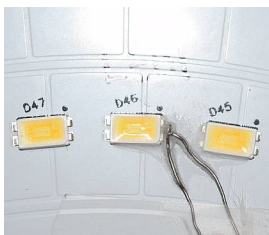
TC#4 LED #D46

TC#5 LED #D66

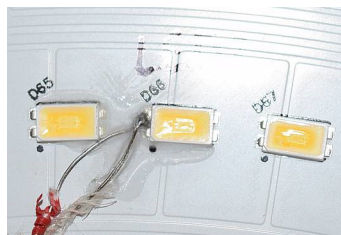
TC#6 LED #D374



Typical Led TC Loc



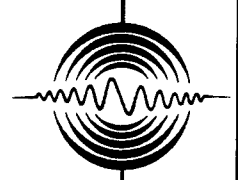
TC#4 Led D46



TC#5 Led D66



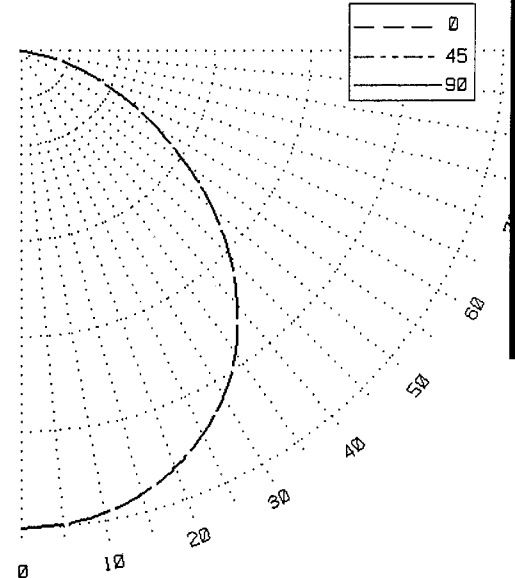
TC#6 Led D374



BALLABS CERTIFIED TEST REPORT NO.: 20680.0 DATE 12/10/18
 PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
 DESCRIPTION: 1-384 LED 12.5" DIA ARRAY HIGH BAY LUMINAIRE
 CHARCOAL PLASTIC HOUSING w/FROSTED ACRYLIC LENS
 2 ADVANCE #XI095C275V054BSS1 @ 2400 mA
 CATALOG NBR: ***
 LAMP TYPE : LUMASMART 5000K 80CRI LM561C S5 FLUX

CANDLEPOWER DISTRIBUTION

VERT ANG	AVERAGE CANDELA	ZONAL LUMENS
0	8751.	831.1
5	8707.	2382.6
10	8594.	3598.7
15	8405.	4259.2
20	8133.	4149.3
25	7775.	3306.0
30	7333.	2102.1
35	6780.	902.4
40	6107.	67.3
45	5358.	
50	4552.	
55	3685.	
60	2865.	
65	2118.	
70	1453.	
75	853.	
80	365.	
85	62.	
90	0.	



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NVLAP LAB CODE 200921-0

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	6812.	NA.	31.5	90-120	0.	NA.	.0
0- 40	11072.	NA.	51.3	90-130	0.	NA.	.0
0- 60	18527.	NA.	85.8	90-150	0.	NA.	.0
0- 90	21599.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE =				0-180	21599.	NA.	100.0

IES SPACING CRITERIA: ADJACENT= 1.2 DIAGONAL= .9

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BALLABS CERTIFIED TEST REPORT NO.: 20680.0 DATE 12/10/18
 PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
 DESCRIPTION: 1-384 LED 12.5" DIA ARRAY HIGH BAY LUMINAIRE
 CHARCOAL PLASTIC HOUSING w/FROSTED ACRYLIC LENS
 2 ADVANCE #XI095C275V054BSS1 @ 2400 mA

CATALOG NBR: ***

LAMP TYPE : LUMASMART 5000K 80CRI LM561C S5 FLUX

LUMINANCES-CD/SQ-M
 HORIZONTAL ANGLE

VERT ANGLE	0
45	58881.
55	49925.
65	38940.
75	25610.
85	5502.

MAXIMUM BRIGHTNESSES NOT MEASURED

ZONAL CAVITY COEFFICIENTS OF UTILIZATION

EFFECTIVE FLOOR CAVITY REFLECTANCE=.20

CEILING	.80		.70		.50		.30		.10		.00							
WALL	.70	.50	.30	.10	.70	.50	.30	.10	.50	.30	.10	.50	.30	.10	.00			
RCR																		
0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.11	1.07	1.03	1.00	1.08	1.05	1.01	.99	1.01	.98	.95	.97	.95	.93	.93	.91	.90	.88
2	1.02	.95	.90	.85	1.00	.94	.88	.84	.90	.86	.82	.87	.83	.80	.84	.81	.78	.76
3	.95	.85	.78	.73	.92	.84	.77	.72	.81	.75	.71	.78	.74	.70	.76	.72	.68	.66
4	.87	.76	.69	.63	.85	.75	.68	.62	.73	.66	.61	.70	.65	.61	.68	.64	.60	.58
5	.80	.68	.60	.54	.78	.67	.59	.53	.65	.58	.53	.63	.57	.52	.61	.56	.52	.50
6	.74	.61	.53	.47	.72	.60	.52	.47	.59	.52	.46	.57	.51	.46	.55	.50	.46	.44
7	.68	.55	.47	.41	.66	.54	.46	.41	.53	.46	.41	.51	.45	.40	.50	.44	.40	.38
8	.63	.50	.41	.36	.61	.49	.41	.36	.47	.40	.35	.46	.40	.35	.45	.39	.35	.33
9	.58	.44	.36	.31	.56	.44	.36	.31	.43	.36	.31	.42	.35	.31	.41	.35	.30	.29
10	.53	.40	.33	.27	.52	.40	.32	.27	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25

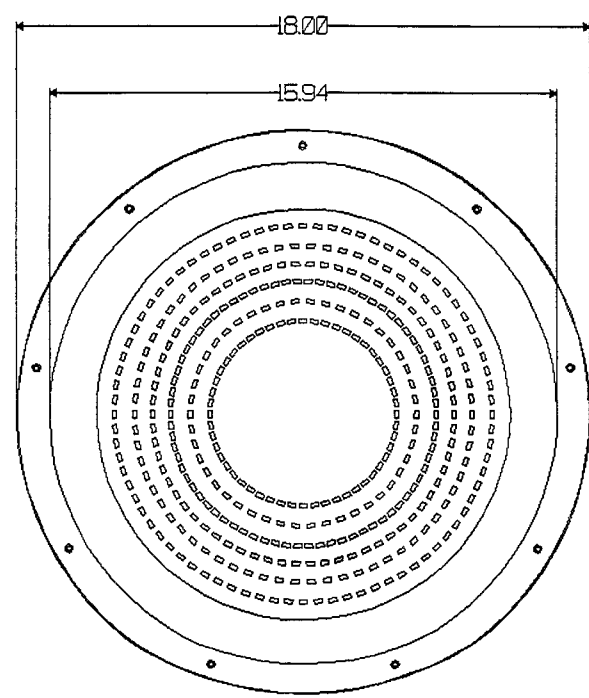
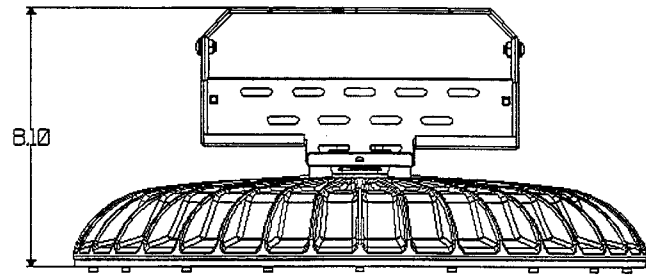
TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

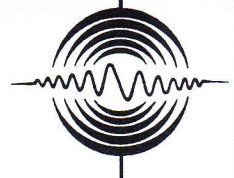
BALLABS CERTIFIED TEST REPORT NO.: 20680.0 DATE 12/10/18
PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
DESCRIPTION: 1-384 LED 12.5" DIA ARRAY HIGH BAY LUMINAIRE
CHARCOAL PLASTIC HOUSING w/FROSTED ACRYLIC LENS
2 ADVANCE #XI095C275V054BSS1 @ 2400 mA
CATALOG NBR: ***
LAMP TYPE : LUMASMART 5000K 80CRI LM561C S5 FLUX

ELECTRICAL CHARACTERISTICS 120.03V 1.6292A 195.0300W

LUMINOUS EFFICACY (LUMENS / WATTS) = 110.7

TESTED IN ACCORDANCE WITH CURRENT IES STANDARDS
UTILIZING ABSOLUTE PHOTOMETRY PER LM-79-08

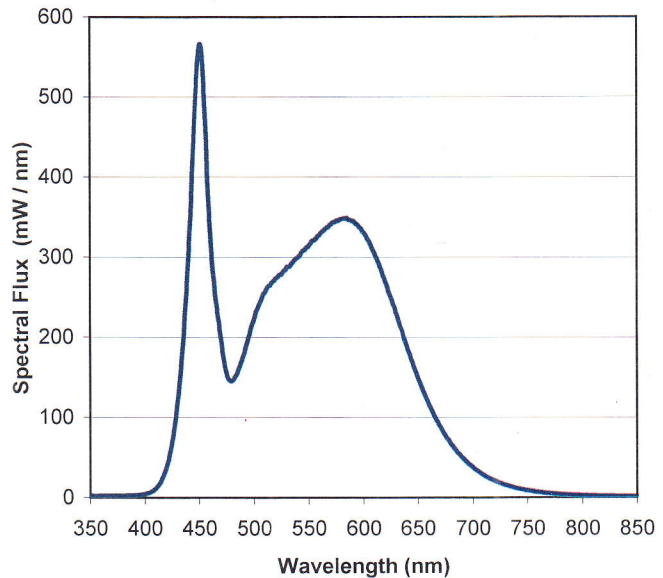
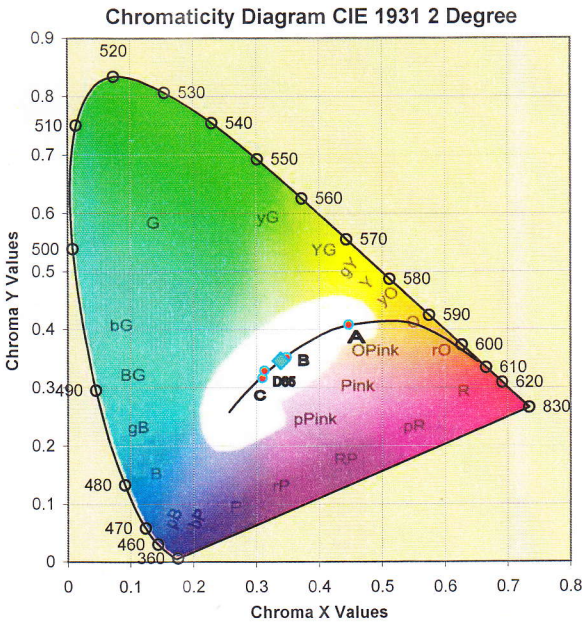




BALLABS CERTIFIED TEST REPORT NO.: 20705.0 A DATE 01/09/19
 PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
 DESCRIPTION: 1-384 LED 12.5"DIA ARRAY HIGHBAY LUMINAIRE
 CHARCOAL PLASTIC HOUSING w/FROSTED ACRYLIC LENS
 2 ADVANCE #XI095C275V054BSS1 @ 2400mA
 CATALOG NBR: CLD-LUMASMART S6
 LAMP TYPE : LS1791B1 S6

INPUT VOLTAGE (V)	120.08
INPUT CURRENT (A)	1.6516
INPUT WATTS (W)	197.7700
POWER FACTOR	0.9972
THDv (%)	0.219
THDi (%)	5.201
LUMINOUS EFFICACY-LPW	109.1
LUMINOUS FLUX- LUMENS	21578
CHROMA x	0.3390
CHROMA y	0.3463
CHROMA u	0.2094
CHROMA v	0.4811
DELTA uv (Duv)	-0.0002
CORR COLOR TEMP (K)	5226
COLOR REND INDEX (RA)	83.34
COLOR REND INDEX (R9)	6.0

Wavelength (nm)	Spectral Flux mW/nm	Wavelength (nm)	Spectral Flux mW/nm
350	1.7143	610	304.3705
360	2.0159	620	268.0125
370	1.9464	630	228.5169
380	2.0387	640	186.7351
390	2.3326	650	148.6597
400	4.0464	660	115.7862
410	11.4123	670	88.1979
420	38.8863	680	66.4904
430	120.0346	690	49.7283
440	302.4533	700	36.8130
450	559.5599	710	27.3742
460	333.2030	720	20.1894
470	194.3317	730	14.8573
480	145.3414	740	10.9789
490	175.7258	750	8.0682
500	223.1673	760	6.0904
510	255.4013	770	4.6185
520	273.3196	780	3.3638
530	287.1924	790	2.5292
540	299.0121	800	2.0083
550	313.8970	810	1.6410
560	327.1981	820	1.2018
570	339.9410	830	0.9221
580	346.8597	840	0.6971
590	344.3797	850	0.6102
600	330.0324		



Data collected per LM79-08 using a Labsphere integrating sphere and 2100 spectroradiometer. Calibration of the spectroradiometer-sphere is traceable to the National Institute of Standards and Technology.

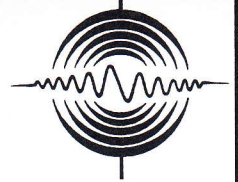


NVLAP LAB CODE 200921-0

[Signature]
 Kelly C. Lerbs
 Vice President

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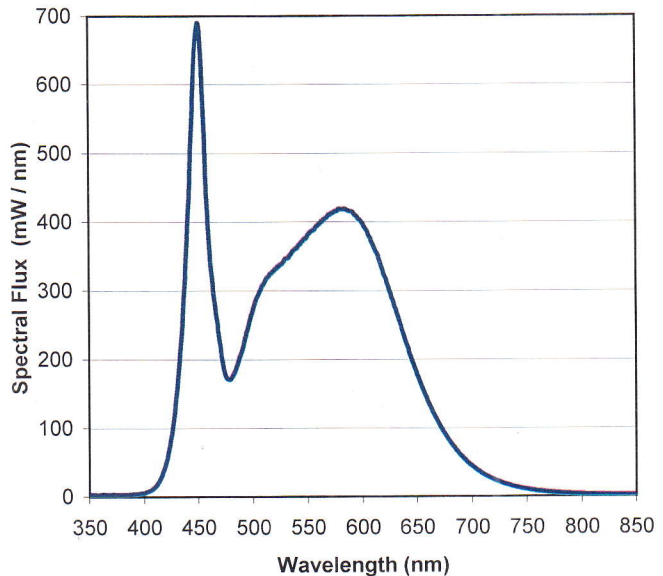
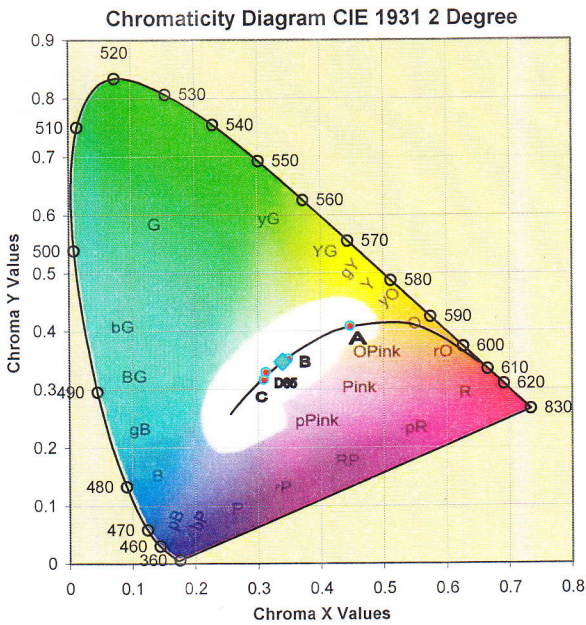
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BALLABS CERTIFIED TEST REPORT NO.: 20705.1 A DATE 01/09/19
 PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
 DESCRIPTION: 1-384 LED 12.5"DIA ARRAY HIGHBAY LUMINAIRE
 CHARCOAL PLASTIC HOUSING w/OPEN BOTTOM
 2 ADVANCE #XI095C275V054BSS1 @ 2400mA
 CATALOG NBR: CLD-LUMASMART S6 - NO LENS
 LAMP TYPE : LS1791B1 S6

INPUT VOLTAGE (V)	120.08
INPUT CURRENT (A)	1.6547
INPUT WATTS (W)	198.1400
POWER FACTOR	0.9972
THDv (%)	0.223
THDi (%)	5.143
LUMINOUS EFFICACY-LPW	131.1
LUMINOUS FLUX- LUMENS	25969
CHROMA x	0.3392
CHROMA y	0.3464
CHROMA u	0.2094
CHROMA v	0.4812
DELTA uv (Duv)	-0.0002
CORR COLOR TEMP (K)	5220
COLOR REND INDEX (RA)	83.24
COLOR REND INDEX (R9)	5.8

Wavelength (nm)	Spectral Flux (mW/nm)	Wavelength (nm)	Spectral Flux (mW/nm)
350	1.6407	610	365.8633
360	1.9638	620	321.9304
370	2.2599	630	274.9476
380	2.4711	640	225.0073
390	3.0788	650	178.7344
400	4.9078	660	138.6275
410	13.4267	670	105.5667
420	46.2984	680	79.4655
430	145.1504	690	59.1676
440	374.0599	700	43.7759
450	686.1317	710	32.1644
460	384.4902	720	23.5557
470	223.7159	730	17.1206
480	170.8661	740	12.7116
490	210.9072	750	9.3414
500	270.4380	760	6.9778
510	308.6662	770	5.1730
520	328.9176	780	4.0519
530	345.3328	790	3.0430
540	361.1647	800	2.2798
550	378.0362	810	1.7717
560	394.4454	820	1.3948
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580	417.1559	840	0.9354
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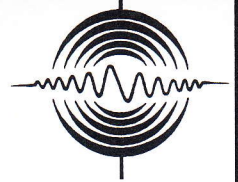
Data collected per LM79-08 using a Labsphere integrating sphere and 2100 spectroradiometer. Calibration of the spectroradiometer-sphere is traceable to the National Institute of Standards and Technology.



NVLAP LAB CODE 200921-0

Kelly C. Lerbs
 Vice President

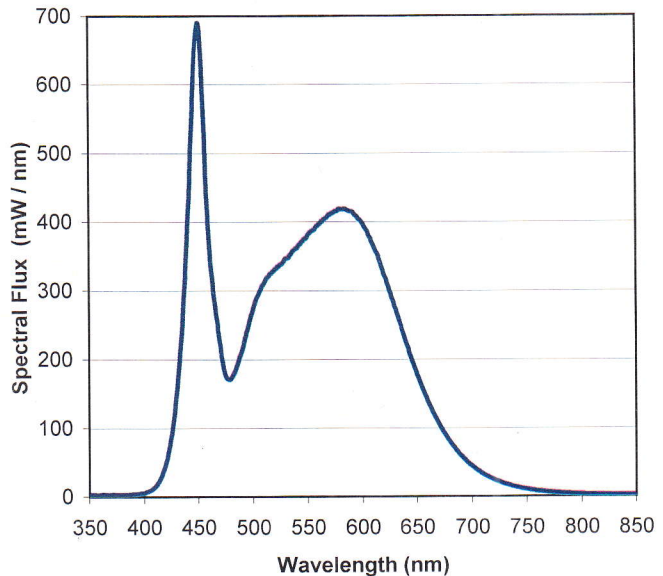
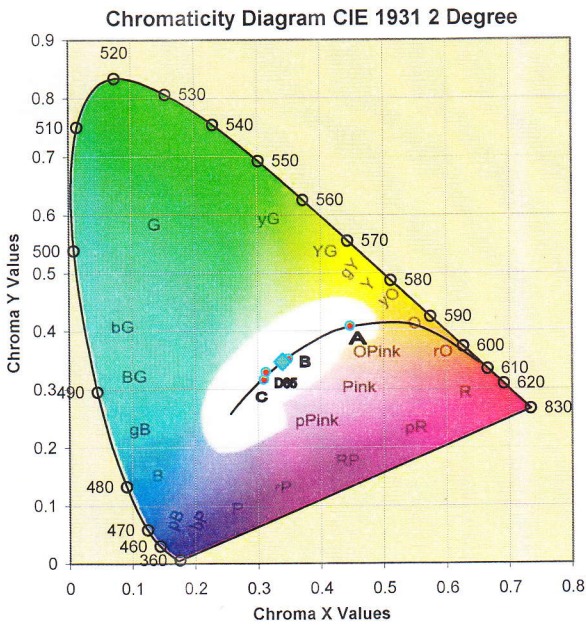
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 CHARCOAL PLASTIC HOUSING w/OPEN BOTTOM
 2 ADVANCE #XI095C275V054BSS1 @ 2400mA
 CATALOG NBR: CLD-LUMASMART S6 - NO LENS
 LAMP TYPE : LS1791B1 S6

INPUT VOLTAGE (V)	120.08
INPUT CURRENT (A)	1.6547
INPUT WATTS (W)	198.1400
POWER FACTOR	0.9972
THDv (%)	0.223
THDi (%)	5.143
LUMINOUS EFFICACY-LPW	131.1
LUMINOUS FLUX- LUMENS	25969
CHROMA x	0.3392
CHROMA y	0.3464
CHROMA u	0.2094
CHROMA v	0.4812
DELTA uv (Duv)	-0.0002
CORR COLOR TEMP (K)	5220
COLOR REND INDEX (RA)	83.24
COLOR REND INDEX (R9)	5.8

Wavelength (nm)	Spectral Flux (mW/nm)	Wavelength (nm)	Spectral Flux (mW/nm)
350	1.6407	610	365.8633
360	1.9638	620	321.9304
370	2.2599	630	274.9476
380	2.4711	640	225.0073
390	3.0788	650	178.7344
400	4.9078	660	138.6275
410	13.4267	670	105.5667
420	46.2984	680	79.4655
430	145.1504	690	59.1676
440	374.0599	700	43.7759
450	686.1317	710	32.1644
460	384.4902	720	23.5557
470	223.7159	730	17.1206
480	170.8661	740	12.7116
490	210.9072	750	9.3414
500	270.4380	760	6.9778
510	308.6662	770	5.1730
520	328.9176	780	4.0519
530	345.3328	790	3.0430
540	361.1647	800	2.2798
550	378.0362	810	1.7717
560	394.4454	820	1.3948
570	409.5505	830	1.1662
580	417.1559	840	0.9354
590	414.1094	850	0.6667
600	397.0601		



Data collected per LM79-08 using a Labsphere integrating sphere and 2100 spectroradiometer. Calibration of the spectroradiometer-sphere is traceable to the National Institute of Standards and Technology.



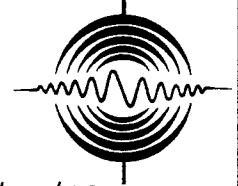
NVLAP LAB CODE 200921-0

Kelly C. Lerbs

Kelly C. Lerbs
 Vice President

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SIGNIFICANCE OF THE TEST IS LIMITED TO THE DEGREE THAT THE TESTED SAMPLE IS REPRESENTATIVE. OTHER FACTORS AFFECT FIELD PERFORMANCE.

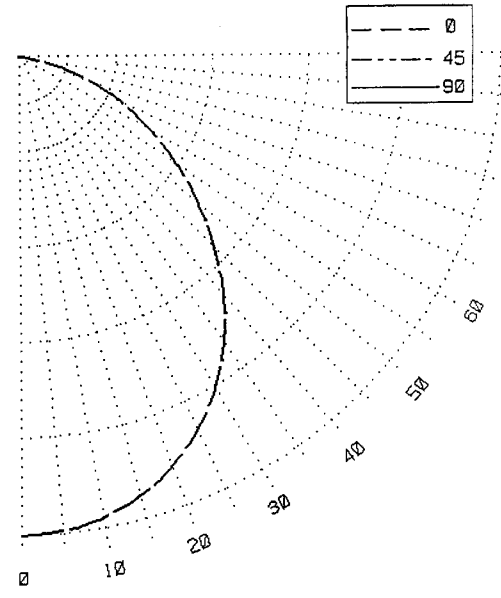


SIGNIFICANCE OF THE TEST IS LIMITED TO THE DEGREE THAT THE TESTED SAMPLE IS REPRESENTATIVE. OTHER FACTORS AFFECT FIELD PERFORMANCE.

BALLABS CERTIFIED TEST REPORT NO.: 20705.0 DATE 01/09/19
 PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
 DESCRIPTION: 1-384 LED 12.5"DIA ARRAY Highbay Luminaire
 Charcoal Plastic Housing w/Frosted Acrylic Lens
 2 Advance #XI095C275V054BSS1 @ 2400mA
 CATALOG NBR: CLD-LUMASMART S6
 LAMP TYPE : LS1791B1 S6

CANDLEPOWER DISTRIBUTION

VERT ANG	AVERAGE CANDELA	ZONAL LUMENS
0	9129.	
5	9071.	865.9
10	8927.	
15	8676.	2459.2
20	8344.	
25	7904.	3658.6
30	7362.	
35	6706.	4212.4
40	5993.	
45	5198.	4025.2
50	4412.	
55	3629.	3255.7
60	2841.	
65	2137.	2120.8
70	1475.	
75	874.	924.9
80	373.	
85	51.	55.3
90	0.	




NVLAP LAB CODE 200921-0

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	6984.	NA.	32.4	90-120	0.	NA.	.0
0- 40	11196.	NA.	51.9	90-130	0.	NA.	.0
0- 60	18477.	NA.	85.6	90-150	0.	NA.	.0
0- 90	21578.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE =				0-180	21578.	NA.	100.0

IES SPACING CRITERIA: ADJACENT= 1.2 DIAGONAL= .8

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BALLABS CERTIFIED TEST REPORT NO.: 20705.0 DATE 01/09/19
 PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
 DESCRIPTION: 1-384 LED 12.5"DIA ARRAY HIGHBAY LUMINAIRE
 CHARCOAL PLASTIC HOUSING w/FROSTED ACRYLIC LENS
 2 ADVANCE #XI095C275V054BSS1 @ 2400mA
 CATALOG NBR: CLD-LUMASMART S6
 LAMP TYPE : LS1791B1 S6

LUMINANCES-CD/SQ-M
 HORIZONTAL ANGLE

VERT ANGLE	0
45	57120.
55	49165.
65	39286.
75	26251.
85	4518.

MAXIMUM BRIGHTNESSES NOT MEASURED

ZONAL CAVITY COEFFICIENTS OF UTILIZATION

EFFECTIVE FLOOR CAVITY REFLECTANCE=.20

CEILING	.80		.70		.50		.30		.10		.00							
WALL	.70	.50	.30	.10	.70	.50	.30	.10	.50	.30	.10	.50	.30	.10	.50	.30	.10	.00
RCR																		
0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.11	1.07	1.03	1.00	1.08	1.05	1.02	.99	1.01	.98	.96	.97	.95	.93	.93	.92	.90	.88
2	1.02	.95	.90	.85	1.00	.94	.88	.84	.90	.86	.82	.87	.83	.80	.84	.81	.78	.76
3	.95	.85	.78	.73	.92	.84	.77	.72	.81	.76	.71	.78	.74	.70	.76	.72	.69	.67
4	.87	.77	.69	.63	.85	.75	.68	.62	.73	.67	.62	.71	.65	.61	.69	.64	.60	.58
5	.80	.68	.60	.54	.78	.67	.59	.54	.65	.58	.53	.63	.57	.53	.61	.56	.52	.50
6	.74	.61	.53	.47	.72	.61	.53	.47	.59	.52	.47	.57	.51	.46	.56	.50	.46	.44
7	.68	.55	.47	.41	.67	.55	.47	.41	.53	.46	.41	.52	.45	.41	.50	.45	.40	.39
8	.63	.50	.42	.36	.61	.49	.41	.36	.48	.41	.36	.47	.40	.36	.45	.40	.35	.34
9	.58	.45	.37	.31	.56	.44	.37	.31	.43	.36	.31	.42	.36	.31	.41	.35	.31	.29
10	.54	.41	.33	.28	.53	.40	.33	.28	.39	.32	.28	.38	.32	.28	.37	.32	.27	.26

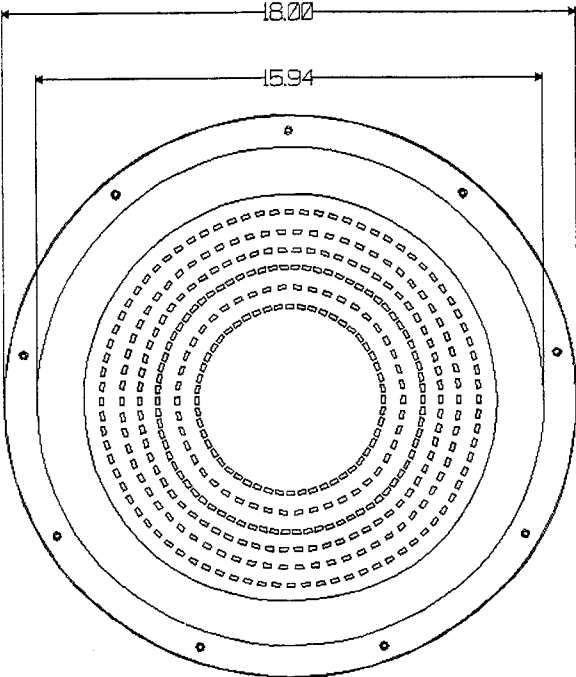
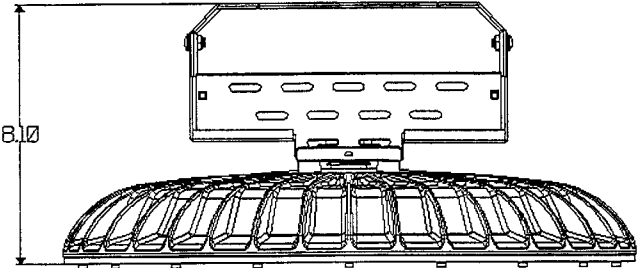
TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

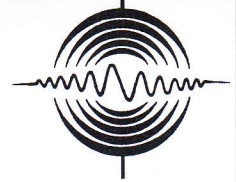
BALLABS CERTIFIED TEST REPORT NO.: 20705.0 DATE 01/09/19
PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
DESCRIPTION: 1-384 LED 12.5"DIA ARRAY HIGHBAY LUMINAIRE
CHARCOAL PLASTIC HOUSING w/FROSTED ACRYLIC LENS
2 ADVANCE #XI095C275V054BSS1 @ 2400mA
CATALOG NBR: CLD-LUMASMART S6
LAMP TYPE : LS1791B1 S6

ELECTRICAL CHARACTERISTICS 120.08V 1.6516A 197.7700W

LUMINOUS EFFICACY (LUMENS / WATTS) = 109.1

TESTED IN ACCORDANCE WITH CURRENT IES STANDARDS
UTILIZING ABSOLUTE PHOTOMETRY PER LM-79-08

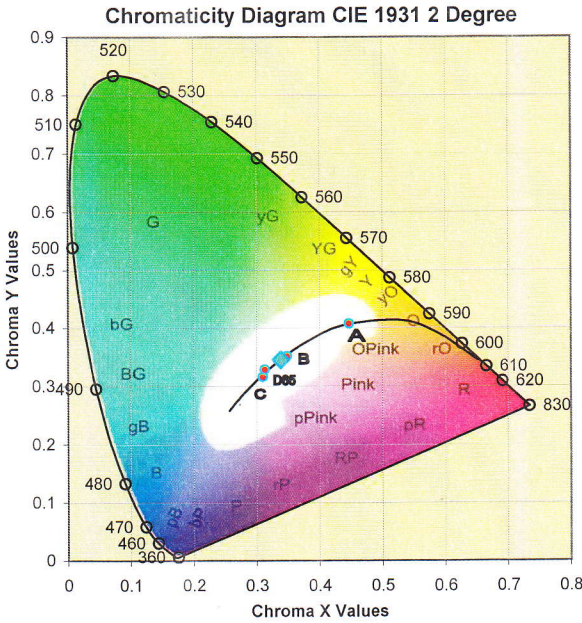




BALLABS CERTIFIED TEST REPORT NO.: 20706.0 A DATE 01/09/19
 PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
 DESCRIPTION: 1-384 LED 12.5"DIA ARRAY HIGHBAY LUMINAIRE
 CHARCOAL PLASTIC HOUSING w/WHITE REFL & FROST ACRYLIC LENS
 2 ADVANCE #XI095C275V054BSS1 @ 2400mA
 CATALOG NBR: CLD-LUMASMART S6
 LAMP TYPE : LS1791B1 S6

INPUT VOLTAGE (V)	120.15
INPUT CURRENT (A)	1.6500
INPUT WATTS (W)	197.6800
POWER FACTOR	0.9971
THDv (%)	0.222
THDi (%)	5.186
LUMINOUS EFFICACY-LPW	119.7
LUMINOUS FLUX- LUMENS	23653
CHROMA x	0.3383
CHROMA y	0.3455
CHROMA u	0.2092
CHROMA v	0.4806
DELTA uv (Duv)	-0.0003
CORR COLOR TEMP (K)	5257
COLOR REND INDEX (RA)	83.48
COLOR REND INDEX (R9)	6.6

Wavelength (nm)	Spectral Flux (mW/nm)	Wavelength (nm)	Spectral Flux (mW/nm)
350	1.9025	610	332.0986
360	1.9506	620	292.8107
370	2.1615	630	249.2556
380	2.4013	640	204.2490
390	2.7942	650	162.6597
400	4.6031	660	126.8186
410	12.5094	670	96.4752
420	43.0749	680	72.8087
430	131.7794	690	54.4060
440	332.6347	700	40.5254
450	617.9796	710	29.8507
460	367.8251	720	21.9646
470	215.2534	730	16.2072
480	161.4630	740	12.0513
490	193.9305	750	8.8434
500	246.1730	760	6.6829
510	281.1483	770	5.0630
520	300.7141	780	3.7637
530	313.8981	790	2.7493
540	328.0607	800	2.1580
550	343.2804	810	1.7051
560	357.5649	820	1.3348
570	371.6426	830	0.9861
580	380.2122	840	0.8312
590	377.3711	850	0.6631
600	360.8959		

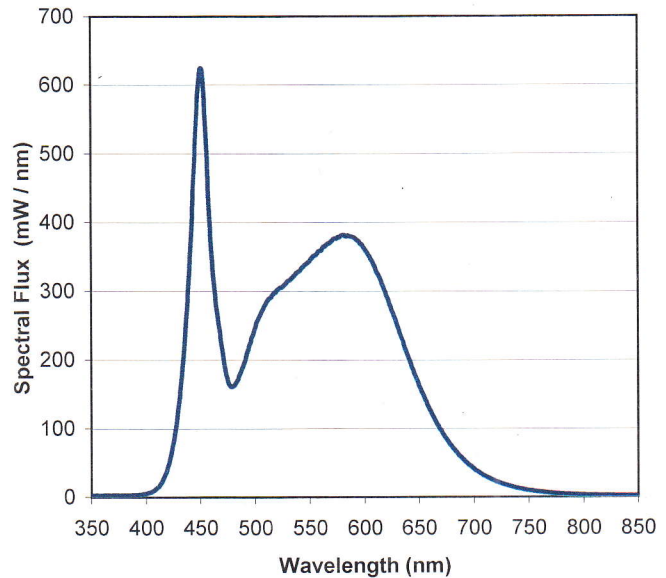


Data collected per LM79-08 using a Labsphere integrating sphere and 2100 spectroradiometer. Calibration of the spectroradiometer-sphere is traceable to the National Institute of Standards and Technology.

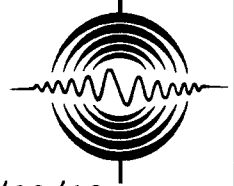


NVLAP LAB CODE 200921-0

Kelly C. Lerbs
 Vice President



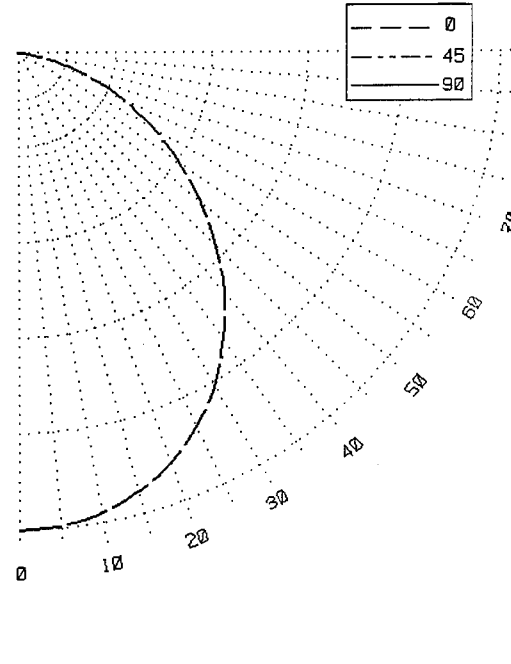
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BALLABS CERTIFIED TEST REPORT NO.: 20706.0 DATE 01/09/19
 PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
 DESCRIPTION: 1-384 LED 12.5"DIA ARRAY HIGHBAY LUMINAIRE
 CHARCOAL PLASTIC HOUSING w/WHITE REFL & FROST ACRYLIC LENS
 2 ADVANCE #XI095C275V054BSS1 @ 2400mA
 CATALOG NBR: CLD-LUMASMART S6
 LAMP TYPE : LS1791B1 S6

CANDLEPOWER DISTRIBUTION

VERT ANG	AVERAGE CANDELA	ZONAL LUMENS
0	9879.	
5	9826.	937.9
10	9670.	
15	9405.	2665.9
20	9061.	
25	8583.	3972.6
30	8006.	
35	7286.	4577.3
40	6563.	
45	5703.	4416.4
50	4869.	
55	4011.	3598.9
60	3181.	
65	2380.	2362.1
70	1661.	
75	979.	1035.7
80	432.	
85	79.	85.7
90	0.	



SIGNIFICANCE OF THE TEST IS LIMITED TO THE DEGREE THAT THE TESTED SAMPLE IS REPRESENTATIVE. OTHER FACTORS AFFECT FIELD PERFORMANCE.



NVLAP LAB CODE 200921-0

LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT	ZONE	LUMENS	%LAMP	%FIXT
0- 30	7576.	NA.	32.0	90-120	0.	NA.	.0
0- 40	12154.	NA.	51.4	90-130	0.	NA.	.0
0- 60	20169.	NA.	85.3	90-150	0.	NA.	.0
0- 90	23653.	NA.	100.0	90-180	0.	NA.	.0
TOTAL LUMINAIRE =				0-180	23653.	NA.	100.0

IES SPACING CRITERIA: ADJACENT= 1.2 DIAGONAL= .9

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BALLABS CERTIFIED TEST REPORT NO.: 20706.0 DATE 01/09/19
 PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
 DESCRIPTION: 1-384 LED 12.5"DIA ARRAY HIGHBAY LUMINAIRE
 CHARCOAL PLASTIC HOUSING w/WHITE REFL & FROST ACRYLIC LENS
 2 ADVANCE #XI095C275V054BSS1 @ 2400mA
 CATALOG NBR: CLD-LUMASMART S6
 LAMP TYPE : LS1791B1 S6

LUMINANCES-CD/SQ-M
 HORIZONTAL ANGLE

VERT ANGLE	0
45	62671.
55	54348.
65	43757.
75	29395.
85	7004.

MAXIMUM BRIGHTNESSES NOT MEASURED

ZONAL CAVITY COEFFICIENTS OF UTILIZATION

EFFECTIVE FLOOR CAVITY REFLECTANCE=.20

CEILING	.80		.70		.50		.30		.10		.00							
WALL	.70	.50	.30	.10	.70	.50	.30	.10	.50	.30	.10	.50	.30	.10	.50	.30	.10	.00
RCR																		
0	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.11	1.07	1.03	1.00	1.08	1.05	1.01	.98	1.00	.98	.95	.97	.94	.93	.93	.91	.90	.88
2	1.02	.95	.89	.85	1.00	.93	.88	.84	.90	.86	.82	.87	.83	.80	.84	.81	.78	.76
3	.94	.85	.78	.72	.92	.84	.77	.72	.81	.75	.71	.78	.73	.69	.76	.72	.68	.66
4	.87	.76	.68	.62	.85	.75	.68	.62	.73	.66	.61	.70	.65	.60	.68	.64	.60	.58
5	.80	.68	.60	.54	.78	.67	.59	.53	.65	.58	.53	.63	.57	.52	.61	.56	.52	.50
6	.74	.61	.53	.47	.72	.60	.52	.47	.59	.52	.46	.57	.51	.46	.55	.50	.46	.44
7	.68	.55	.47	.41	.66	.54	.47	.41	.53	.46	.41	.51	.45	.40	.50	.44	.40	.38
8	.63	.50	.41	.36	.61	.49	.41	.36	.48	.41	.35	.46	.40	.35	.45	.39	.35	.33
9	.58	.45	.37	.31	.56	.44	.36	.31	.43	.36	.31	.42	.35	.31	.41	.35	.31	.29
10	.54	.41	.33	.28	.52	.40	.33	.28	.39	.32	.27	.38	.32	.27	.37	.31	.27	.25

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

BALLABS CERTIFIED TEST REPORT NO.: 20706.0 DATE 01/09/19
PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
DESCRIPTION: 1-384 LED 12.5"DIA ARRAY HIGHBAY LUMINAIRE
CHARCOAL PLASTIC HOUSING w/WHITE REFL & FROST ACRYLIC LENS
2 ADVANCE #XI095C275V054BSS1 @ 2400mA
CATALOG NBR: CLD-LUMASMART S6
LAMP TYPE : LS1791B1 S6

ELECTRICAL CHARACTERISTICS 120.15V 1.6500A 197.6800W

LUMINOUS EFFICACY (LUMENS / WATTS) = 119.7

TESTED IN ACCORDANCE WITH CURRENT IES STANDARDS
UTILIZING ABSOLUTE PHOTOMETRY PER LM-79-08

