Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled data based on original data using

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P821172

Luminaire Tested: **TT-D4-830-24VDC-WQ-UPL**

Issue Date: 7/23/2020

Report Generated By 670245763

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P821172
	REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-2) AND
Test Lab:	INNOVATION CENTER
Issue Date:	7/23/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TT-D4-830-24VDC-WQ-UPL
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
	3000K, 80 CRI LEDS AND WIDE DISTRIBUTION
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	7575.7 lumens
Efficiency:	N/A
Efficacy:	132.9 lumens/watt
Luminous Opening:	Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification:	Type V - Short
BUG Rating:	B3 - U4 - G2

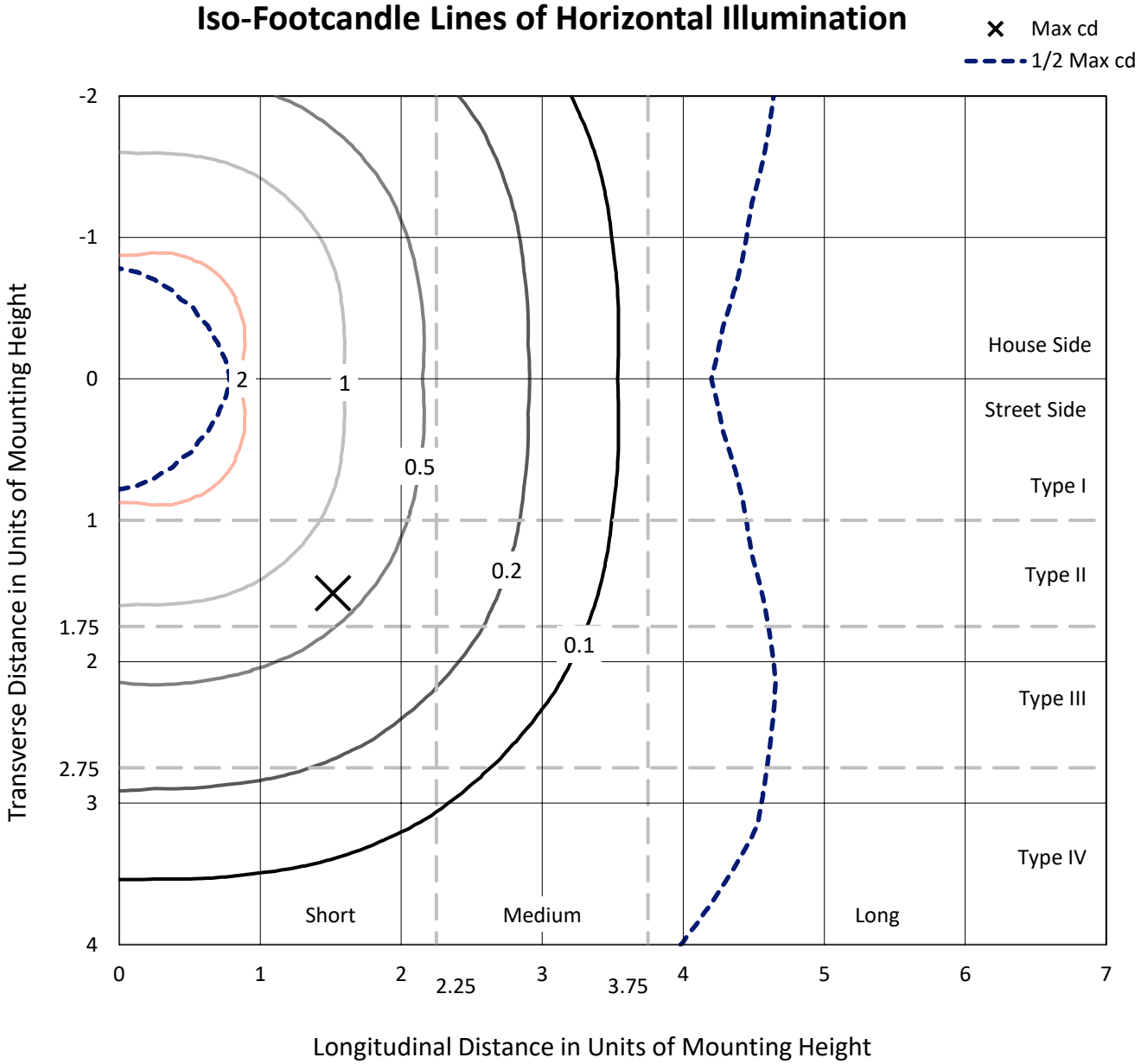
Input Watts (W):	57
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Scaled Data Report

REPORT NUMBER: P821172
CATALOG NUMBER: TT-D4-830-24VDC-WQ-UPL

Iso-Footcandle Lines of Horizontal Illumination



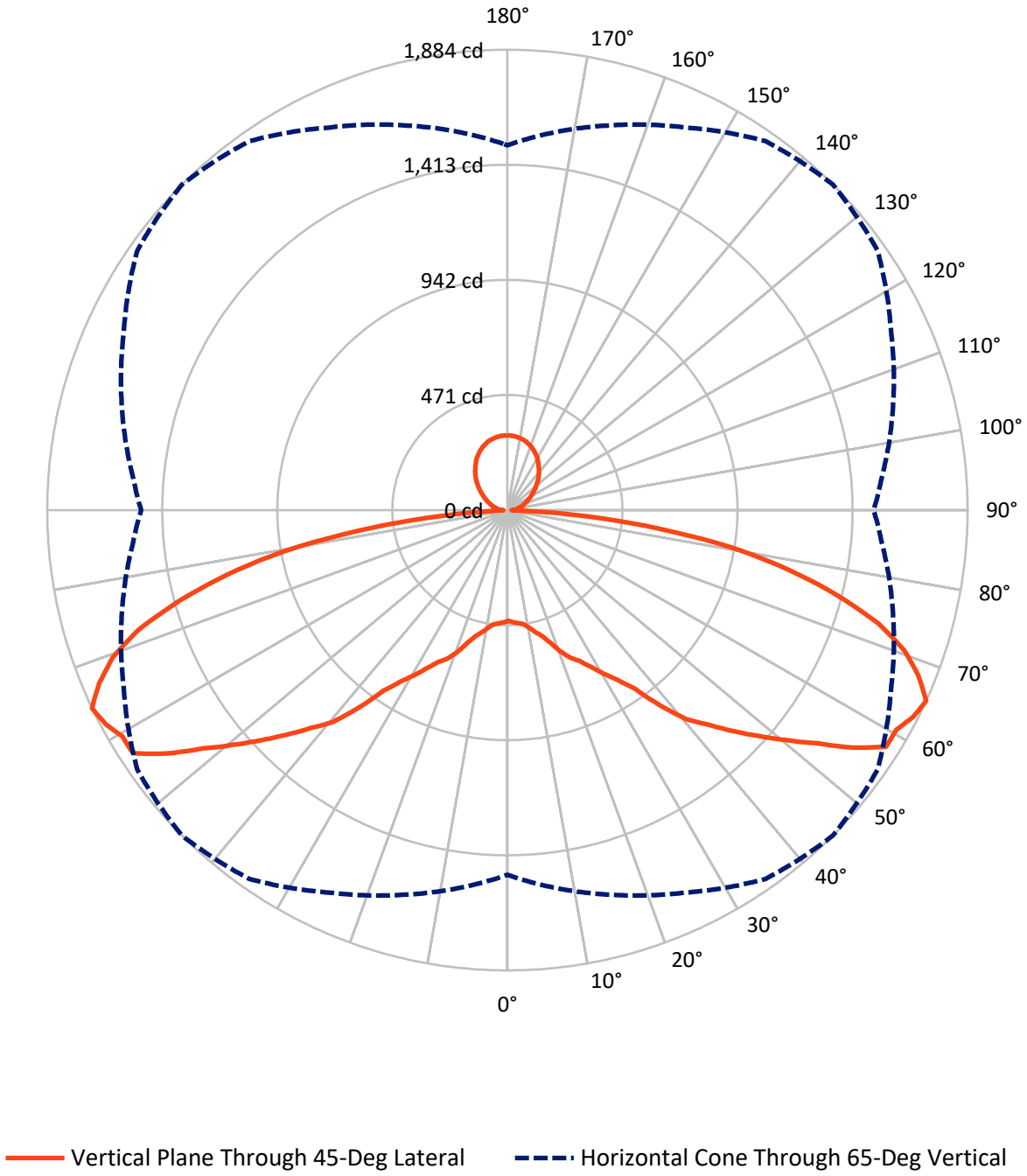
Based on 15 foot mounting height. Maximum calculated value = 2.3 fc
Type V - Short - N/A

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REPORT NUMBER: P821172
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Luminous Intensity Polar Plot



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Scaled Data Report

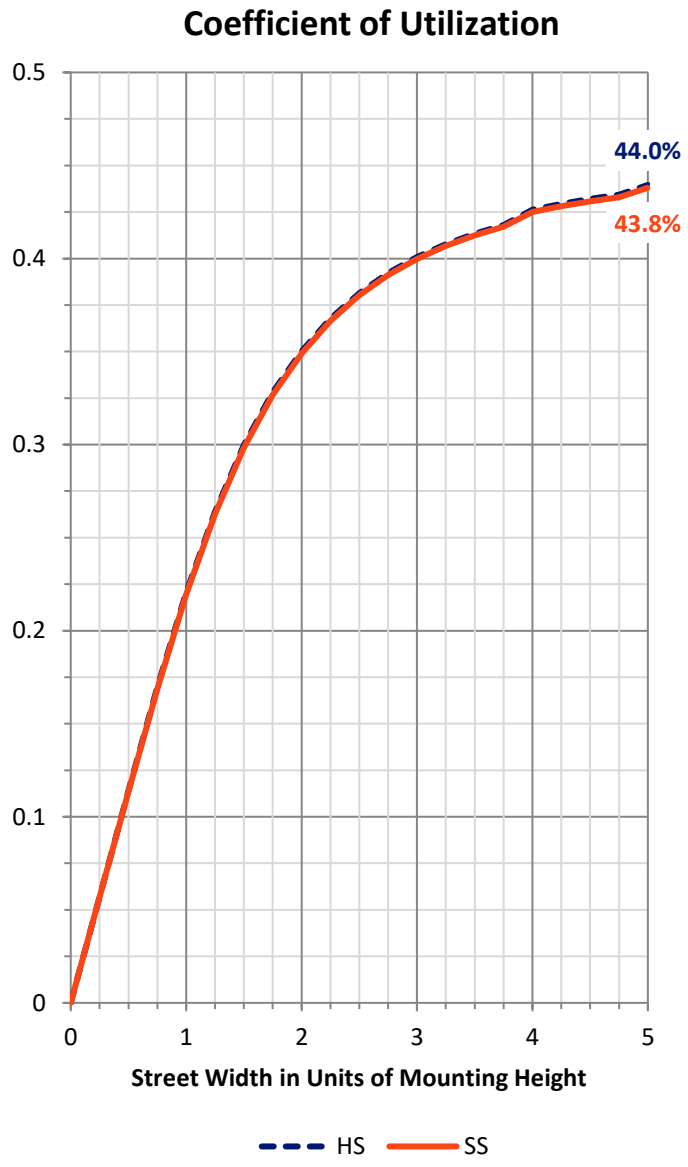
REPORT NUMBER: P821172
CATALOG NUMBER: TT-D4-830-24VDC-WQ-UPL

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3372.0	415.9	3787.9
	% Fixture	44.5	5.5	50.0
Street Side	Lumens	3372.0	415.9	3787.9
	% Fixture	44.5	5.5	50.0
Total	Lumens	6744.0	831.7	7575.7
	% Fixture	89.0	11.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.2	0.6
10°-20°	155.6	2.1
20°-30°	319.5	4.2
30°-40°	567.6	7.5
40°-50°	956.7	12.6
50°-60°	1411.3	18.6
60°-70°	1656.3	21.9
70°-80°	1290.4	17.0
80°-90°	341.4	4.5
90°-100°	42.6	0.6
100°-110°	66.0	0.9
110°-120°	91.9	1.2
120°-130°	119.0	1.6
130°-140°	138.7	1.8
140°-150°	140.5	1.9
150°-160°	121.9	1.6
160°-170°	82.2	1.1
170°-180°	28.9	0.4
0°-90°	6744.0	89.0
0°-180°	7575.7	100.0



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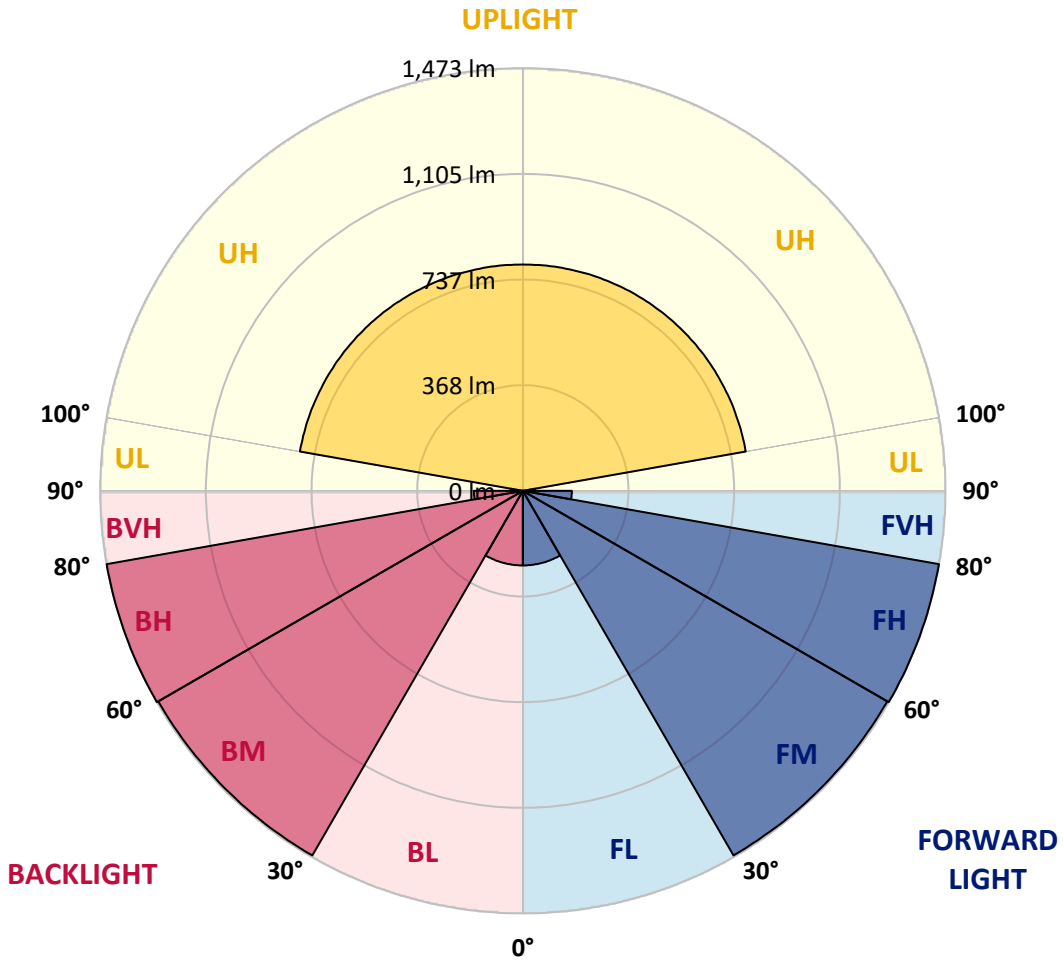
Scaled Data Report

REPORT NUMBER: P821172
CATALOG NUMBER: TT-D4-830-24VDC-WQ-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	260.1	3.4			
FM	(30°-60°)	1467.8	19.4			
FH	(60°-80°)	1473.4	19.4			G1/1800
FVH	(80°-90°)	170.7	2.3			G2/225
BL	(0°-30°)	260.1	3.4	B1/500		
BM	(30°-60°)	1467.8	19.4	B2/2500		
BH	(60°-80°)	1473.4	19.4	B3/2500		G1/1800
BVH	(80°-90°)	170.7	2.3			G2/225
UL	(90°-100°)	42.6	0.6		U2/50	
UH	(100°-180°)	789.1	10.4		U4/1000	

BUG Rating: B3-U4-G2
Type V Short



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REPORT NUMBER: P821172
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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	453.6	453.6	453.6	453.6	453.6	*453.6*	453.6	453.6	453.6	453.6	453.6
2.5°	461.0	461.0	461.0	460.0	460.0	*460.0*	460.0	461.0	461.0	461.0	461.0
5°	471.6	471.6	469.5	467.4	465.3	*465.3*	466.3	467.4	468.5	470.6	470.6
7.5°	478.0	478.0	476.9	474.8	471.6	*471.6*	472.7	474.8	475.9	475.9	474.8
10°	486.5	487.5	490.7	491.8	489.7	*489.7*	490.7	491.8	489.7	486.5	486.5
12.5°	506.6	507.7	511.9	515.1	515.1	*513.0*	514.0	516.2	510.9	505.6	506.6
15°	535.2	535.2	536.3	539.5	537.4	*535.2*	537.4	538.4	535.2	534.2	536.3
17.5°	573.4	573.4	567.0	572.3	573.4	*572.3*	574.4	569.1	566.0	570.2	572.3
20°	614.7	610.5	607.3	611.5	620.0	*616.8*	621.1	609.4	606.2	608.4	609.4
22.5°	641.2	644.4	646.5	648.6	660.3	*656.1*	660.3	647.6	645.5	641.2	638.0
25°	673.0	676.2	688.9	682.6	690.0	*683.6*	688.9	681.5	685.7	673.0	673.0
27.5°	709.1	715.4	722.8	719.6	729.2	*726.0*	729.2	718.6	719.6	714.4	712.2
30°	757.8	757.8	755.7	762.0	779.0	*776.9*	777.9	764.2	754.6	755.7	759.9
32.5°	806.6	800.2	803.4	822.5	833.1	*828.8*	830.9	824.6	803.4	799.1	802.3
35°	852.1	861.7	869.1	885.0	899.8	*897.7*	896.6	886.0	872.3	855.3	850.0
37.5°	923.1	933.7	953.9	982.5	1009.0	*1014.3*	1000.5	986.7	954.9	930.6	917.8
40°	1016.4	1017.5	1040.8	1095.9	1120.3	*1124.5*	1117.1	1093.8	1045.0	1017.5	1016.4
42.5°	1098.0	1090.6	1128.8	1175.4	1197.6	*1199.8*	1194.5	1175.4	1128.8	1089.5	1097.0
45°	1161.6	1161.6	1207.2	1244.3	1280.3	*1288.8*	1279.3	1239.0	1208.2	1162.7	1159.5
47.5°	1219.9	1235.8	1274.0	1319.5	1370.4	*1382.1*	1370.4	1322.7	1270.8	1236.9	1218.8
50°	1289.9	1308.9	1336.5	1407.5	1464.7	*1480.6*	1463.7	1411.7	1336.5	1307.9	1297.3
52.5°	1371.5	1387.4	1430.8	1519.8	1562.2	*1585.6*	1571.8	1522.0	1432.9	1389.5	1381.0
55°	1469.0	1454.1	1522.0	1607.8	1686.2	*1717.0*	1689.4	1609.9	1532.6	1454.1	1469.0
57.5°	1518.8	1501.8	1597.2	1678.8	1788.0	*1828.3*	1794.4	1685.2	1597.2	1507.1	1517.7
60°	1523.0	1530.4	1602.5	1736.1	1811.3	*1828.3*	1817.7	1745.6	1605.7	1536.8	1516.7
62.5°	1510.3	1555.9	1617.4	1755.1	1823.0	*1864.3*	1828.3	1757.3	1623.7	1563.3	1511.4
65°	*1493.4*	*1538.9*	*1630.1*	*1727.6*	*1843.1*	*1884.4*	*1850.5*	*1732.9*	*1634.3*	*1538.9*	*1499.7*
67.5°	1463.7	1447.8	1560.1	1690.5	1791.2	*1815.6*	1794.4	1692.6	1559.1	1445.7	1466.9
70°	1369.3	1355.6	1452.0	1595.1	1691.5	*1725.5*	1700.0	1597.2	1454.1	1358.7	1371.5
72.5°	1229.4	1233.7	1327.0	1463.7	1567.5	*1588.7*	1575.0	1462.6	1332.3	1239.0	1222.0
75°	1066.2	1076.8	1165.9	1289.9	1384.2	*1396.9*	1383.1	1295.2	1164.8	1083.2	1060.9
77.5°	876.5	892.4	964.5	1088.5	1151.0	*1179.6*	1157.4	1091.7	969.8	896.6	874.4
80°	679.4	684.7	735.5	835.2	917.8	*936.9*	915.7	838.4	741.9	686.8	670.9
82.5°	445.1	453.6	499.2	575.5	629.6	*624.3*	629.6	569.1	504.5	451.5	425.0
85°	198.2	215.2	245.9	281.9	316.9	*326.4*	316.9	286.2	245.9	210.9	206.7
87.5°	13.8	15.9	19.1	20.1	22.3	*17.0*	17.0	17.0	14.8	17.0	13.8
90°	30.1	29.1	29.1	29.1	29.1	*29.1*	29.1	29.1	29.1	29.1	29.1
92.5°	34.8	34.2	34.2	33.8	33.8	*33.8*	33.8	33.8	33.8	33.8	33.8
95°	39.4	39.4	39.4	38.5	38.5	*38.5*	38.5	38.5	38.5	38.5	38.5
97.5°	44.6	44.6	44.6	44.2	44.2	*44.2*	44.2	44.2	44.2	44.2	44.2
100°	49.8	49.8	49.8	49.8	49.8	*49.8*	49.8	49.8	49.8	49.8	49.8
102.5°	55.9	55.9	55.9	55.9	55.9	*55.9*	55.9	56.4	55.9	55.9	55.9
105°	62.0	62.0	62.0	62.0	62.0	*62.0*	62.0	62.9	62.0	62.0	62.0
107.5°	68.6	68.6	69.0	69.0	69.0	*69.0*	69.0	69.5	69.0	69.0	69.0
110°	75.1	75.1	76.1	76.1	76.1	*76.1*	76.1	76.1	76.1	76.1	76.1

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REPORT NUMBER: P821172
CATALOG NUMBER: TT-D4-830-24VDC-WQ-UPL

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	83.1	83.1	84.0	84.0	84.0	*84.0*	84.6	84.6	84.0	84.0	84.0
115°	91.1	91.1	92.0	92.0	92.0	*92.0*	93.0	93.0	92.0	92.0	92.0
117.5°	100.5	100.5	101.0	101.4	101.4	*101.4*	102.4	102.4	101.4	101.4	101.4
120°	109.9	109.9	109.9	110.8	110.8	*110.8*	111.8	111.8	110.8	110.8	110.8
122.5°	120.7	120.7	121.2	121.6	121.6	*121.6*	122.6	122.6	122.1	122.1	121.6
125°	131.5	131.5	132.4	132.4	132.4	*132.4*	133.4	133.4	133.4	133.4	132.4
127.5°	143.2	143.2	144.2	144.2	144.2	*144.2*	145.1	145.1	145.1	145.1	144.2
130°	155.0	155.0	155.9	155.9	155.9	*155.9*	156.8	156.8	156.8	156.8	155.9
132.5°	167.2	167.2	167.6	167.6	167.6	*168.1*	168.6	168.6	168.6	168.6	168.1
135°	179.4	179.4	179.4	179.4	179.4	*180.3*	180.3	180.3	180.3	180.3	180.3
137.5°	191.2	190.6	191.2	190.6	191.2	*191.6*	191.6	191.6	191.6	191.6	191.6
140°	202.9	201.9	202.9	201.9	202.9	*202.9*	202.9	202.9	202.9	202.9	202.9
142.5°	213.7	213.2	213.7	212.7	213.7	*213.7*	213.7	213.7	213.7	213.7	213.7
145°	224.5	224.5	224.5	223.5	224.5	*224.5*	224.5	224.5	224.5	224.5	224.5
147.5°	235.8	235.3	235.8	234.8	235.8	*235.8*	235.8	235.8	235.8	235.8	235.8
150°	247.0	246.1	247.0	246.1	247.0	*247.0*	247.0	247.0	247.0	247.0	247.0
152.5°	256.0	255.5	256.4	255.5	256.0	*256.0*	256.4	256.0	256.0	256.0	256.0
155°	264.9	264.9	265.8	264.9	264.9	*264.9*	265.8	264.9	264.9	264.9	264.9
157.5°	272.4	272.4	273.3	272.4	272.4	*272.4*	273.3	272.4	272.4	272.4	272.4
160°	279.9	279.9	280.8	279.9	279.9	*279.9*	280.8	279.9	279.9	279.9	279.9
162.5°	286.0	286.0	286.9	286.0	286.0	*286.0*	286.9	286.0	286.0	286.0	286.0
165°	292.1	292.1	293.0	292.1	292.1	*292.1*	293.0	292.1	292.1	292.1	292.1
167.5°	295.8	295.8	296.8	295.8	295.8	*295.8*	296.8	295.8	295.8	295.8	295.8
170°	299.6	299.6	300.5	299.6	299.6	*299.6*	300.5	299.6	299.6	299.6	299.6
172.5°	302.0	302.0	302.8	302.0	302.4	*302.0*	302.8	302.0	302.0	302.0	302.0
175°	304.3	304.3	305.2	304.3	305.2	*304.3*	305.2	304.3	304.3	304.3	304.3
177.5°	305.2	305.2	305.7	305.2	305.7	*305.2*	305.7	305.2	305.2	305.2	305.2
180°	306.2	306.2	306.2	306.2	306.2	*306.2*	306.2	306.2	306.2	306.2	306.2

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Peachtree City, GA 30269

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Streetworks

Report Number: SP1-2407-176-7

Test Date: 09/27/2024

Luminaire Tested: MEM2-HTN-VA-30-830-U-WQ

Data in this report applies to families of products including MEM2-HTN-VA-30-830-U-WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

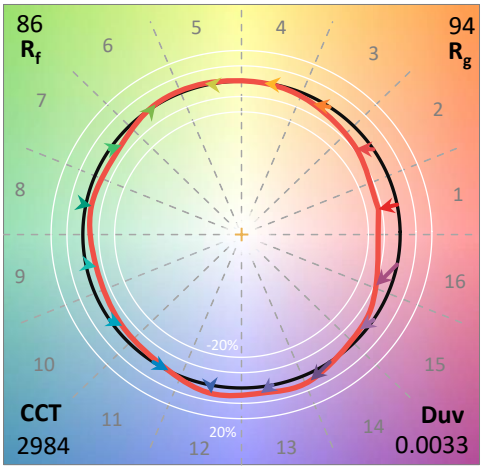
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-176-7
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	09/27/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Streetworks
Catalog Number:	**MEM2-HTN-VA-30-830-U-WQ**
Description:	EPIC MODERN VISUAL COMFORT 30W WAVESTREAM WIDE

Spectral Parameters

CCT (K):	2984	CRI (Ra):	81.8		
CIE u':	0.2500	R1:	79.4	R9:	-1.1
CIE v':	0.5264	R2:	89.9	R10:	78.4
Duv:	0.0033	R3:	96.6	R11:	80.8
CIE x:	0.4431	R4:	80.6	R12:	72.8
CIE y:	0.4147	R5:	80.1	R13:	81.7
CIE z:	0.1422	R6:	88.9	R14:	98.5
Peak Wavelength (nm):	601	R7:	82.6	R15:	70.2
Dominant Wavelength (nm):	581	R8:	56.0		
Purity:	57.4798				

Rf:	85.8
Rg:	94.1



Test Conditions

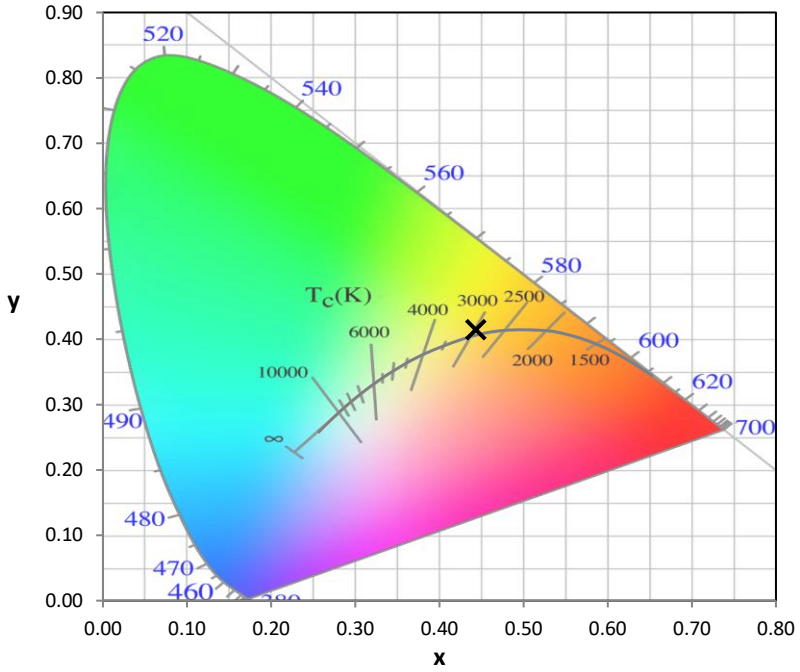
Stabilization Time:	29M
Operation Time:	1H 29M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-7

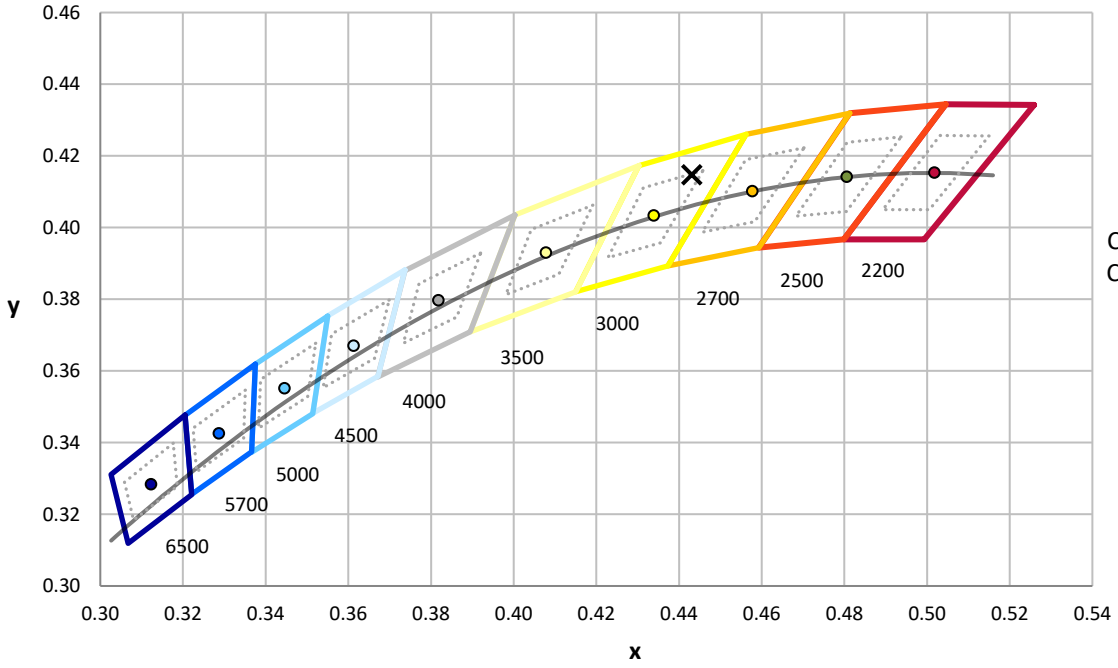
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2407-176-7

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles

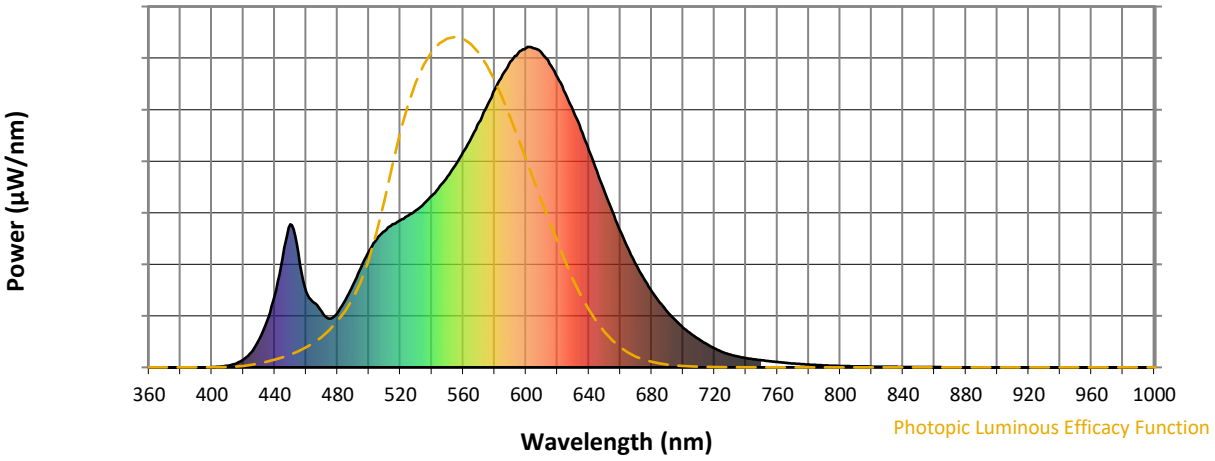


CCT = 2984K
CIE x = 0.4431
CIE y = 0.4147
Duv = 0.0033

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-7

Photopic Flux vs. Wavelength

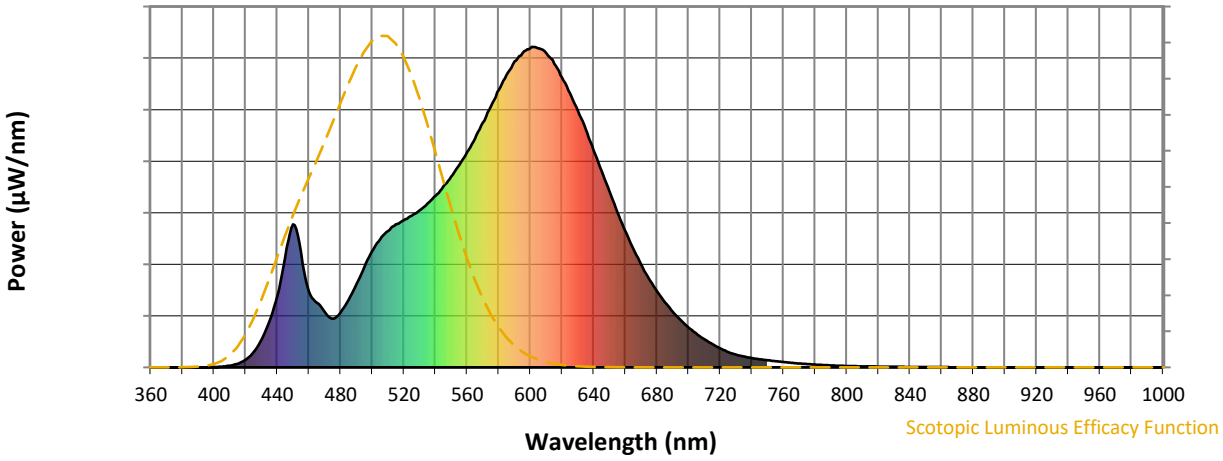


Photopic Lumens: NR

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

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Scotopic Flux vs. Wavelength

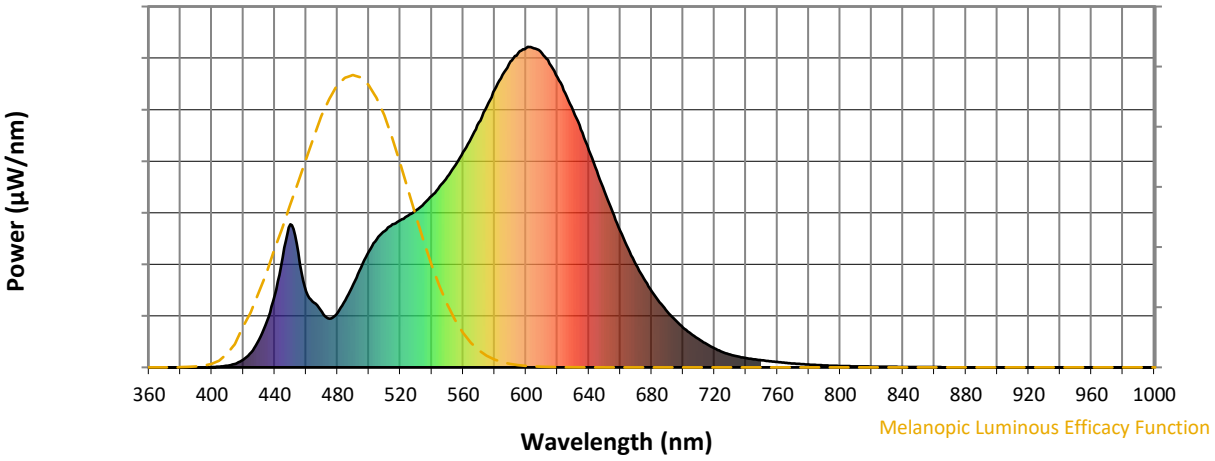


Scotopic Lumens: NR **S/P: 1.32**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.51**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	260	NR	620	905	NR	750	22	NR	880	0	NR
365	0	NR	495	312	NR	625	856	NR	755	19	NR	885	0	NR
370	0	NR	500	362	NR	630	801	NR	760	17	NR	890	0	NR
375	0	NR	505	399	NR	635	742	NR	765	14	NR	895	0	NR
380	0	NR	510	425	NR	640	677	NR	770	12	NR	900	0	NR
385	0	NR	515	446	NR	645	613	NR	775	10	NR	905	0	NR
390	0	NR	520	459	NR	650	549	NR	780	9	NR	910	0	NR
395	0	NR	525	473	NR	655	485	NR	785	7	NR	915	0	NR
400	1	NR	530	490	NR	660	425	NR	790	6	NR	920	0	NR
405	2	NR	535	511	NR	665	371	NR	795	5	NR	925	0	NR
410	5	NR	540	535	NR	670	321	NR	800	4	NR	930	0	NR
415	11	NR	545	565	NR	675	276	NR	805	4	NR	935	0	NR
420	24	NR	550	595	NR	680	238	NR	810	3	NR	940	0	NR
425	47	NR	555	631	NR	685	203	NR	815	3	NR	945	0	NR
430	86	NR	560	672	NR	690	174	NR	820	2	NR	950	0	NR
435	144	NR	565	715	NR	695	148	NR	825	2	NR	955	0	NR
440	224	NR	570	763	NR	700	124	NR	830	2	NR	960	0	NR
445	342	NR	575	814	NR	705	105	NR	835	2	NR	965	0	NR
450	446	NR	580	866	NR	710	88	NR	840	1	NR	970	0	NR
455	357	NR	585	912	NR	715	73	NR	845	1	NR	975	0	NR
460	237	NR	590	954	NR	720	59	NR	850	1	NR	980	0	NR
465	202	NR	595	981	NR	725	48	NR	855	1	NR	985	0	NR
470	172	NR	600	996	NR	730	40	NR	860	1	NR	990	0	NR
475	152	NR	605	996	NR	735	34	NR	865	1	NR	995	0	NR
480	171	NR	610	980	NR	740	29	NR	870	0	NR	1000	0	NR
485	210	NR	615	947	NR	745	25	NR	875	0	NR			

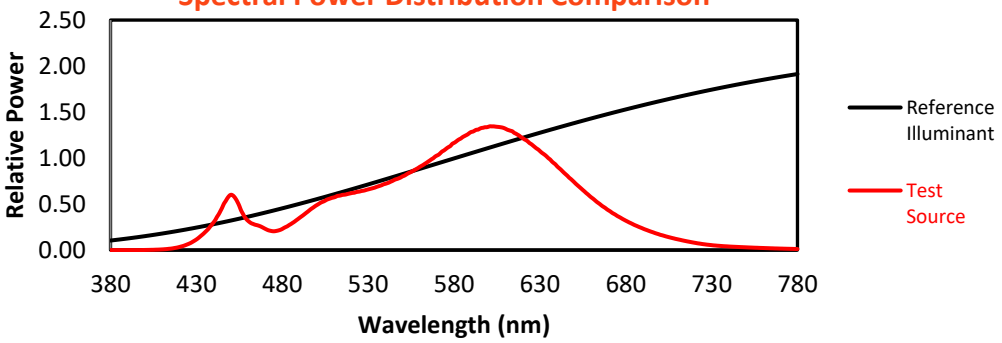
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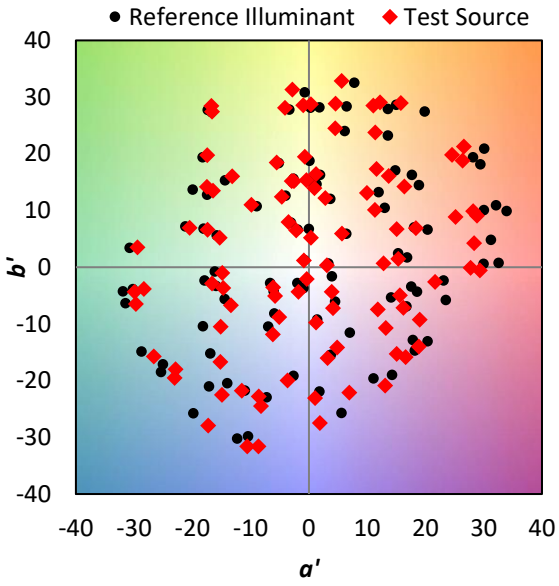
Summary

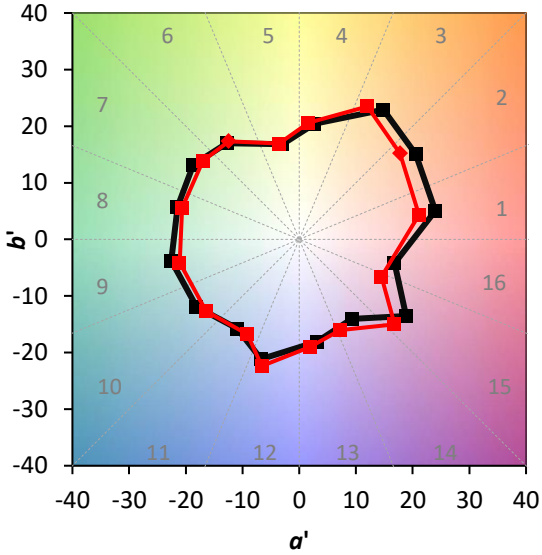
R_f = 85.8
R_g = 94.1
CIE R_a = 81.8
R_9 = -1.1

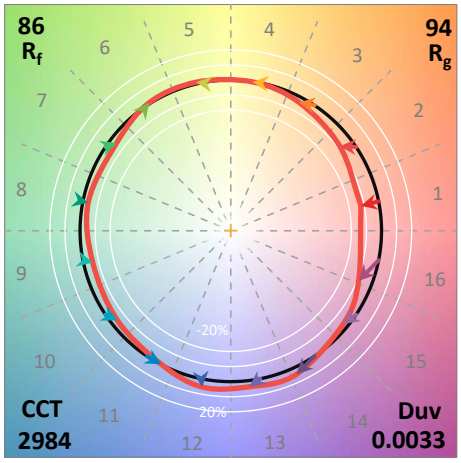
Spectral Power Distribution Comparison

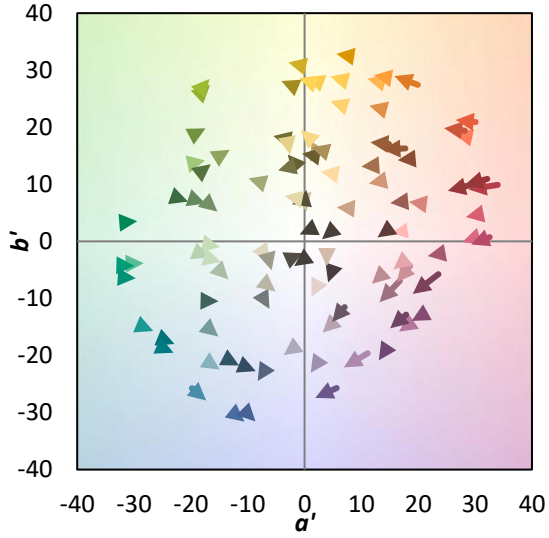


Color Vector Graphics







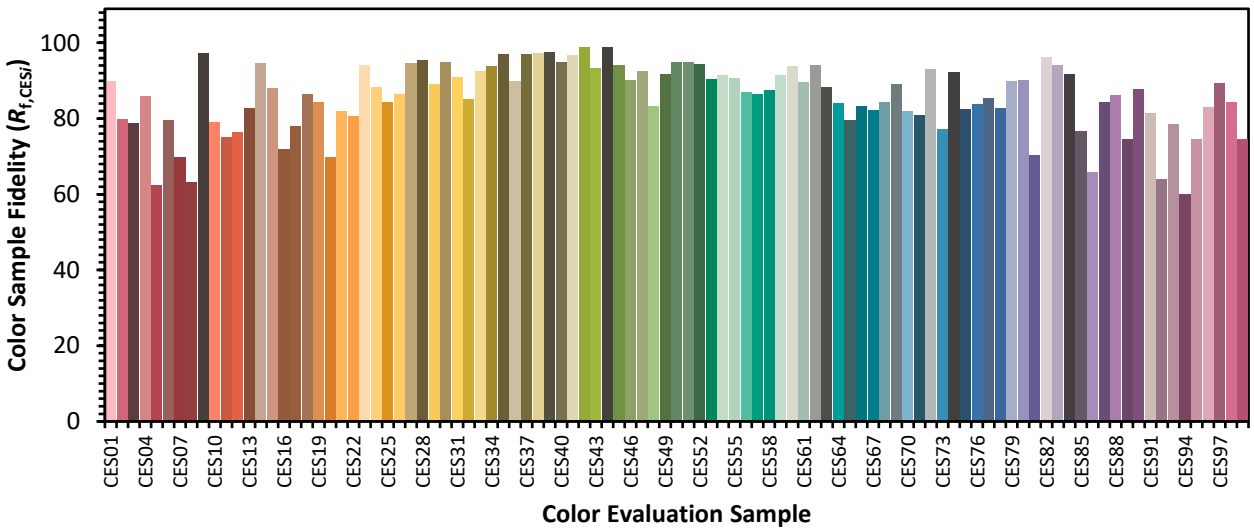


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Individual Sample Fidelity Index ($R_{f,i}$)

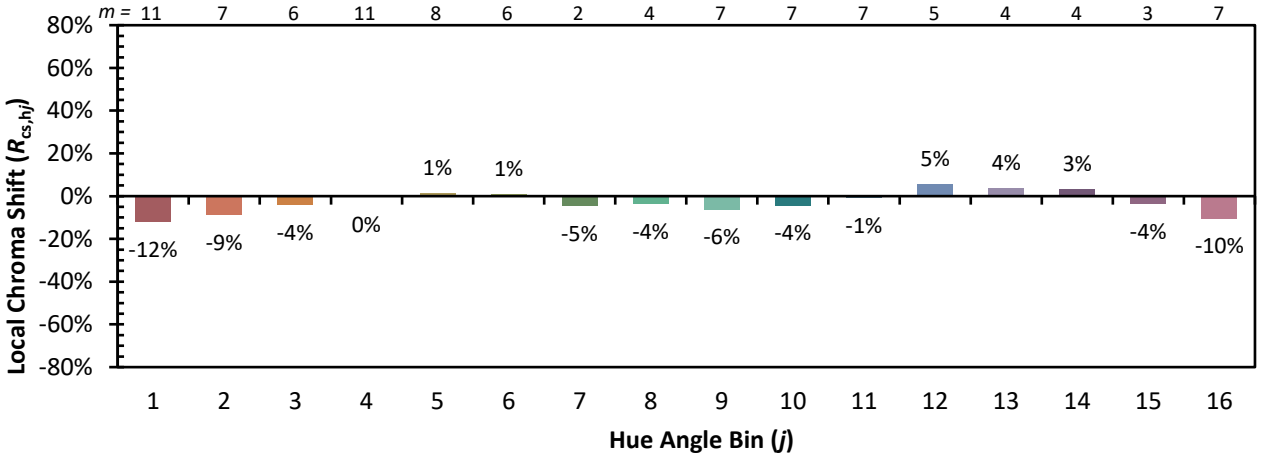
CES01 = 86	CES26 = 86	CES51 = 95	CES76 = 84
CES02 = 63	CES27 = 95	CES52 = 94	CES77 = 86
CES03 = 31	CES28 = 95	CES53 = 90	CES78 = 83
CES04 = 70	CES29 = 89	CES54 = 91	CES79 = 90
CES05 = 50	CES30 = 95	CES55 = 91	CES80 = 90
CES06 = 51	CES31 = 91	CES56 = 87	CES81 = 70
CES07 = 42	CES32 = 85	CES57 = 86	CES82 = 96
CES08 = 41	CES33 = 93	CES58 = 87	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 92	CES84 = 92
CES10 = 76	CES35 = 97	CES60 = 94	CES85 = 77
CES11 = 59	CES36 = 90	CES61 = 90	CES86 = 66
CES12 = 65	CES37 = 97	CES62 = 94	CES87 = 84
CES13 = 43	CES38 = 97	CES63 = 88	CES88 = 86
CES14 = 74	CES39 = 98	CES64 = 84	CES89 = 75
CES15 = 72	CES40 = 95	CES65 = 80	CES90 = 88
CES16 = 47	CES41 = 97	CES66 = 83	CES91 = 81
CES17 = 50	CES42 = 99	CES67 = 82	CES92 = 64
CES18 = 56	CES43 = 93	CES68 = 84	CES93 = 79
CES19 = 72	CES44 = 99	CES69 = 89	CES94 = 60
CES20 = 67	CES45 = 94	CES70 = 82	CES95 = 74
CES21 = 87	CES46 = 90	CES71 = 81	CES96 = 83
CES22 = 79	CES47 = 93	CES72 = 93	CES97 = 89
CES23 = 92	CES48 = 83	CES73 = 77	CES98 = 84
CES24 = 91	CES49 = 92	CES74 = 92	CES99 = 75
CES25 = 72	CES50 = 95	CES75 = 83	

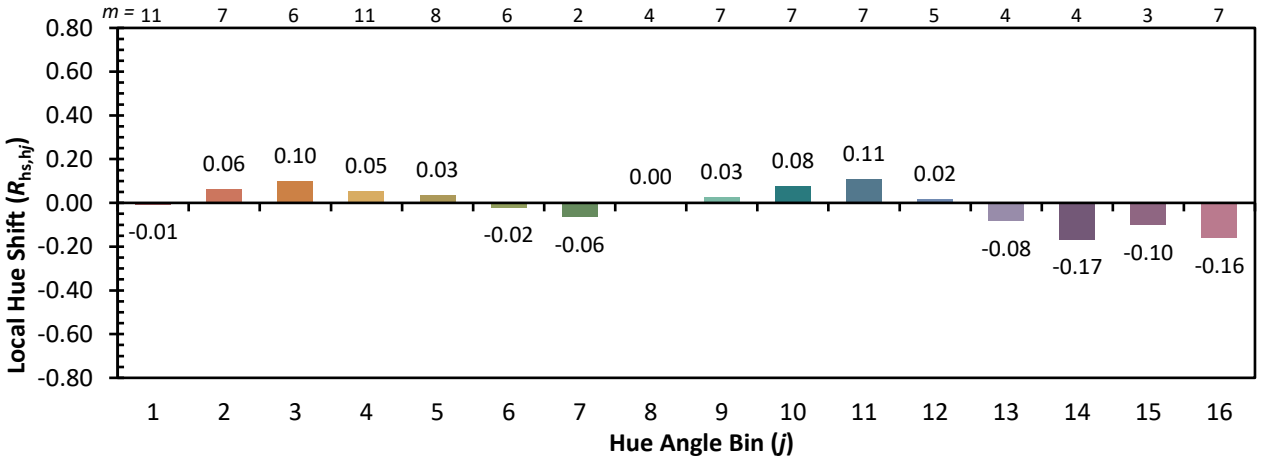


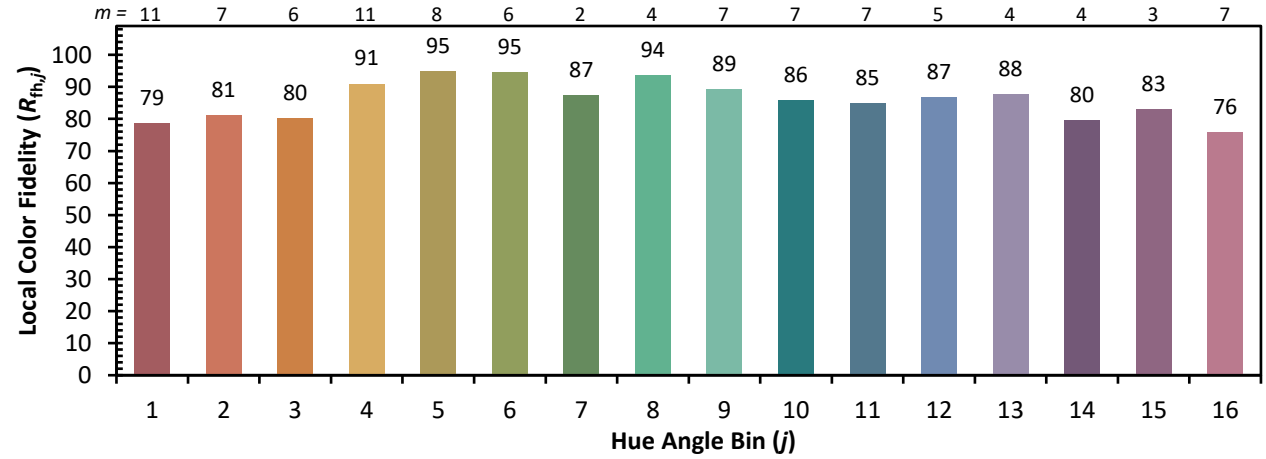
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Color Rendition by Hue-Angle Bin



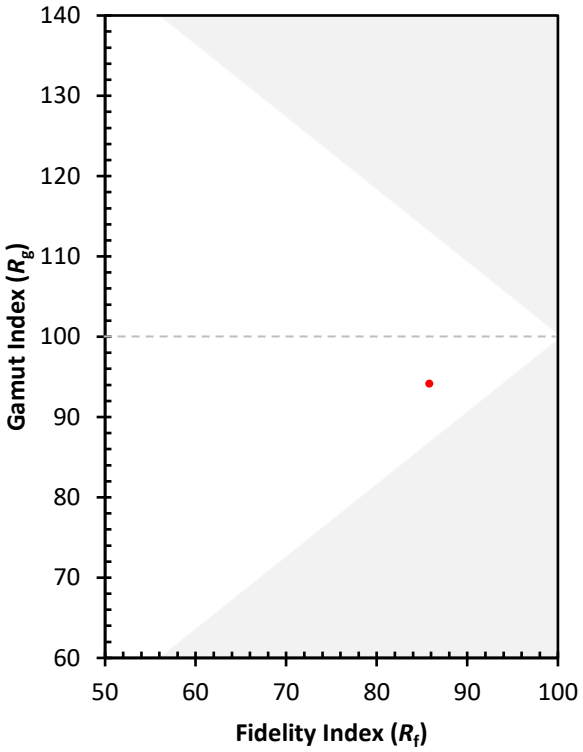


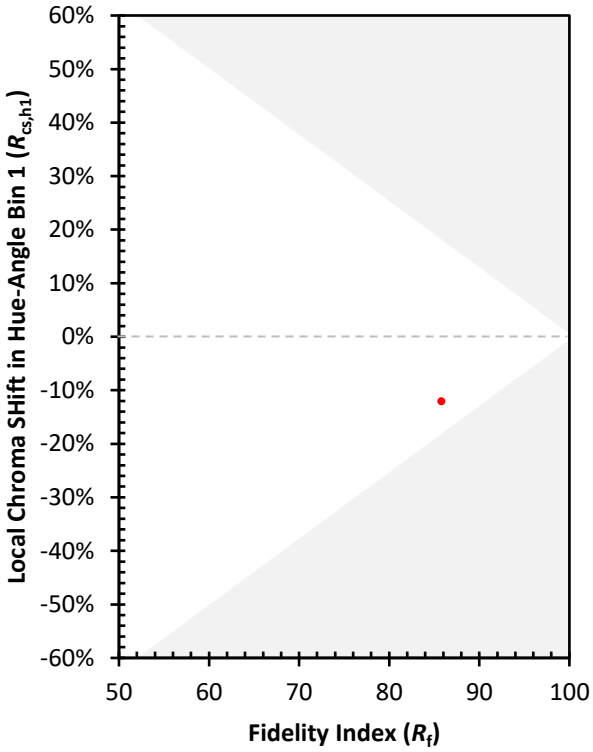


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Measure Comparisons





(END OF REPORT)