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: P821154

Luminaire Tested: **TT-D3-830-24VDC-RW-UPL**

Issue Date: 10/29/2020

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:	P821154
	REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-2) AND
Test Lab:	INNOVATION CENTER
Issue Date:	10/29/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	McGRAW-EDISON
Catalog Number:	TT-D3-830-24VDC-RW-UPL
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
	3000K, 80 CRI LEDS AND RECTANGULAR DISTRIBUTION
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	5361.7 lumens
Efficiency:	N/A
Efficacy:	116.6 lumens/watt
Luminous Opening:	Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification:	Type IV - Short
BUG Rating:	B3 - U4 - G3

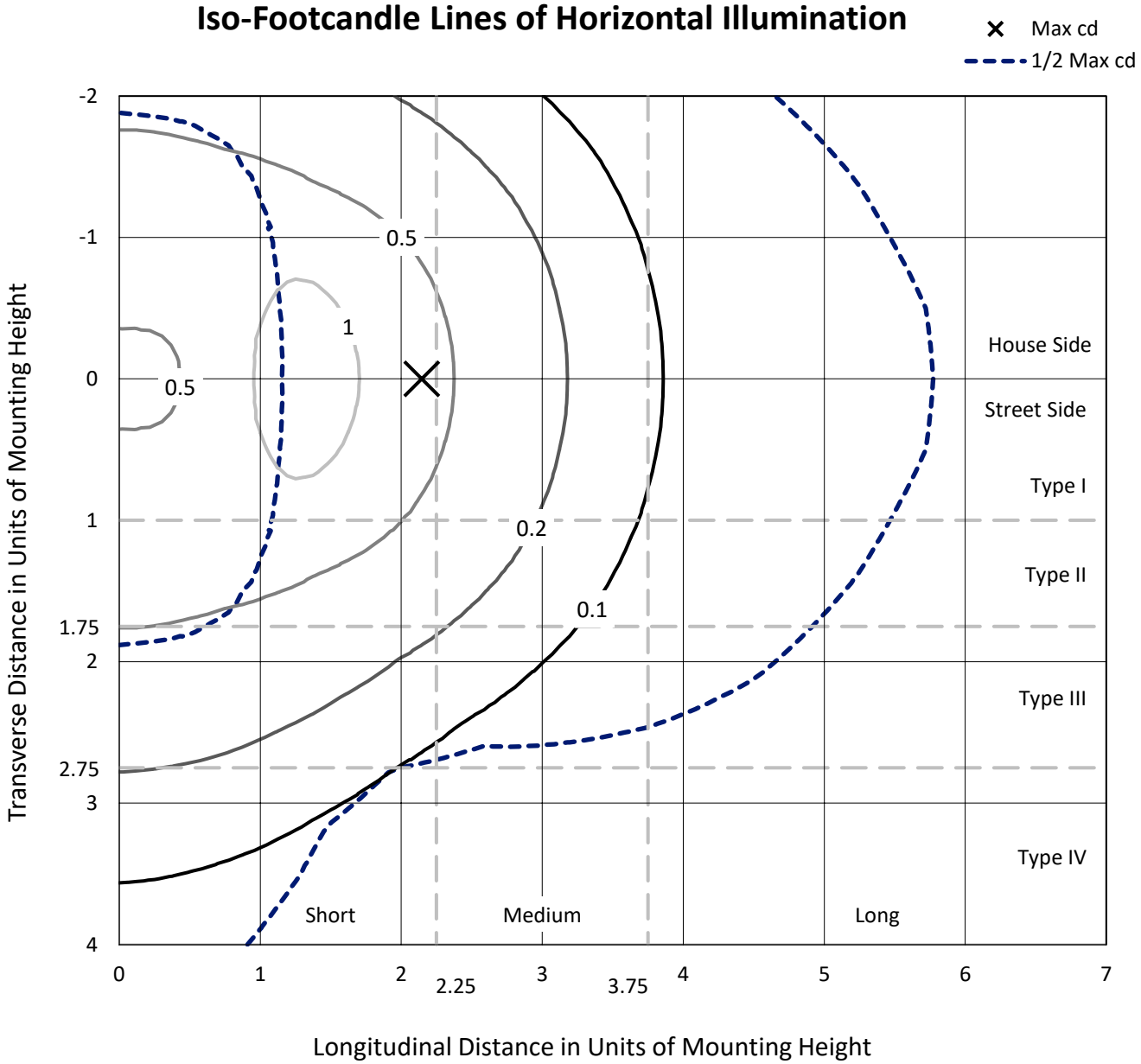
Input Watts (W):	46
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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REPORT NUMBER: P821154
CATALOG NUMBER: TT-D3-830-24VDC-RW-UPL

Iso-Footcandle Lines of Horizontal Illumination



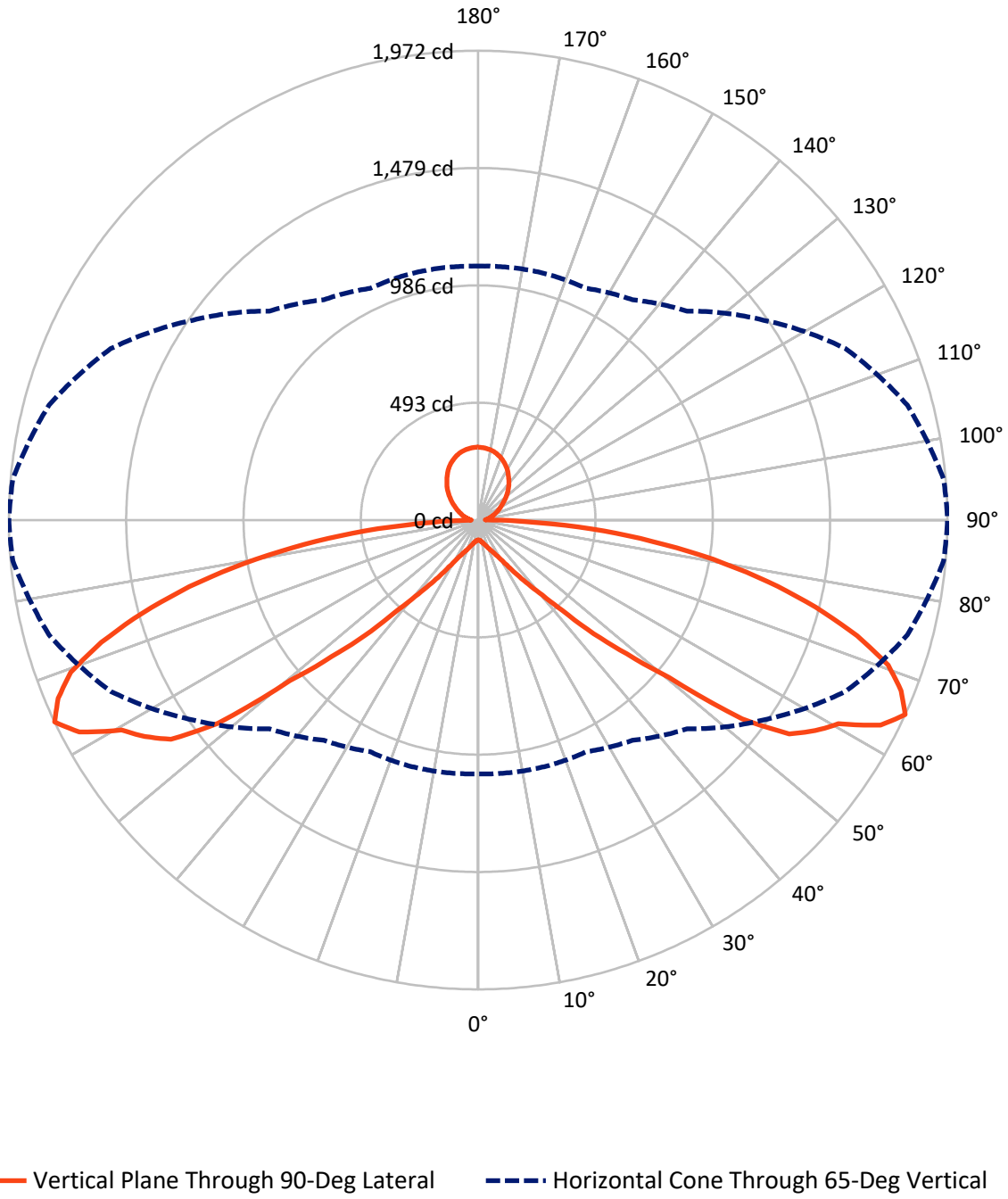
Based on 15 foot mounting height. Maximum calculated value = 1.4 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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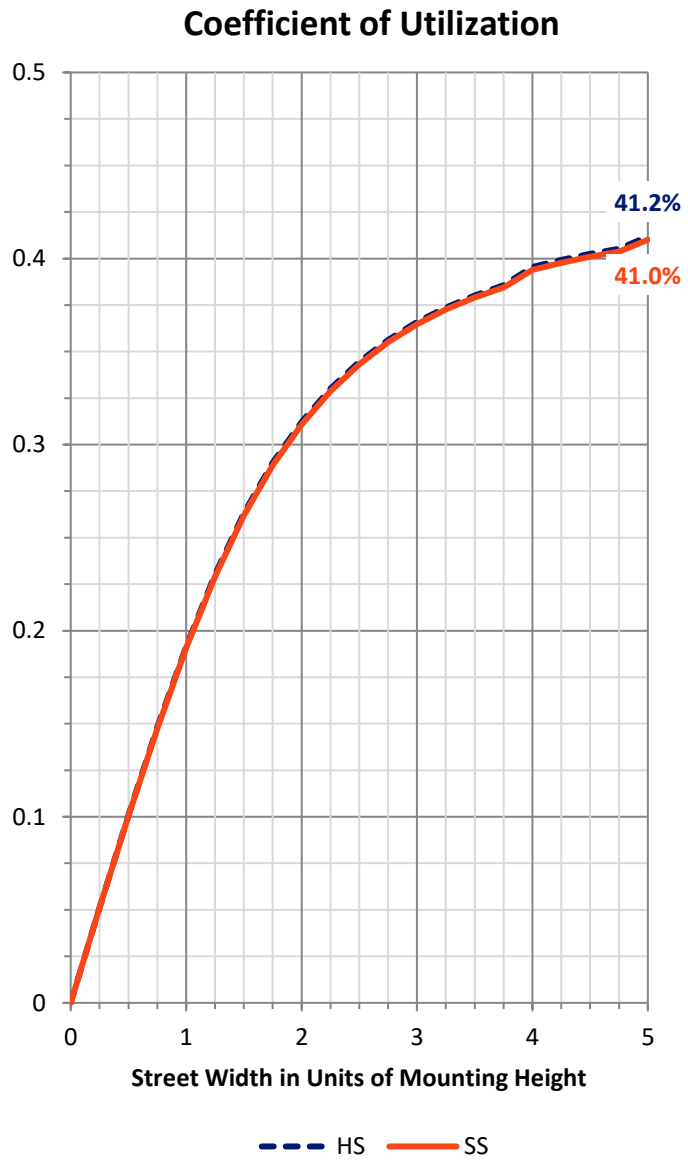
REPORT NUMBER: P821154
CATALOG NUMBER: TT-D3-830-24VDC-RW-UPL

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2265.0	415.9	2680.9
	% Fixture	42.2	7.8	50.0
Street Side	Lumens	2265.0	415.9	2680.9
	% Fixture	42.2	7.8	50.0
Total	Lumens	4530.0	831.7	5361.7
	% Fixture	84.5	15.5	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.6	0.2
10°-20°	32.3	0.6
20°-30°	74.6	1.4
30°-40°	168.6	3.1
40°-50°	410.8	7.7
50°-60°	923.7	17.2
60°-70°	1350.0	25.2
70°-80°	1176.3	21.9
80°-90°	385.0	7.2
90°-100°	42.6	0.8
100°-110°	66.0	1.2
110°-120°	91.9	1.7
120°-130°	119.0	2.2
130°-140°	138.7	2.6
140°-150°	140.5	2.6
150°-160°	121.9	2.3
160°-170°	82.2	1.5
170°-180°	28.9	0.5
0°-90°	4530.0	84.5
0°-180°	5361.7	100.0



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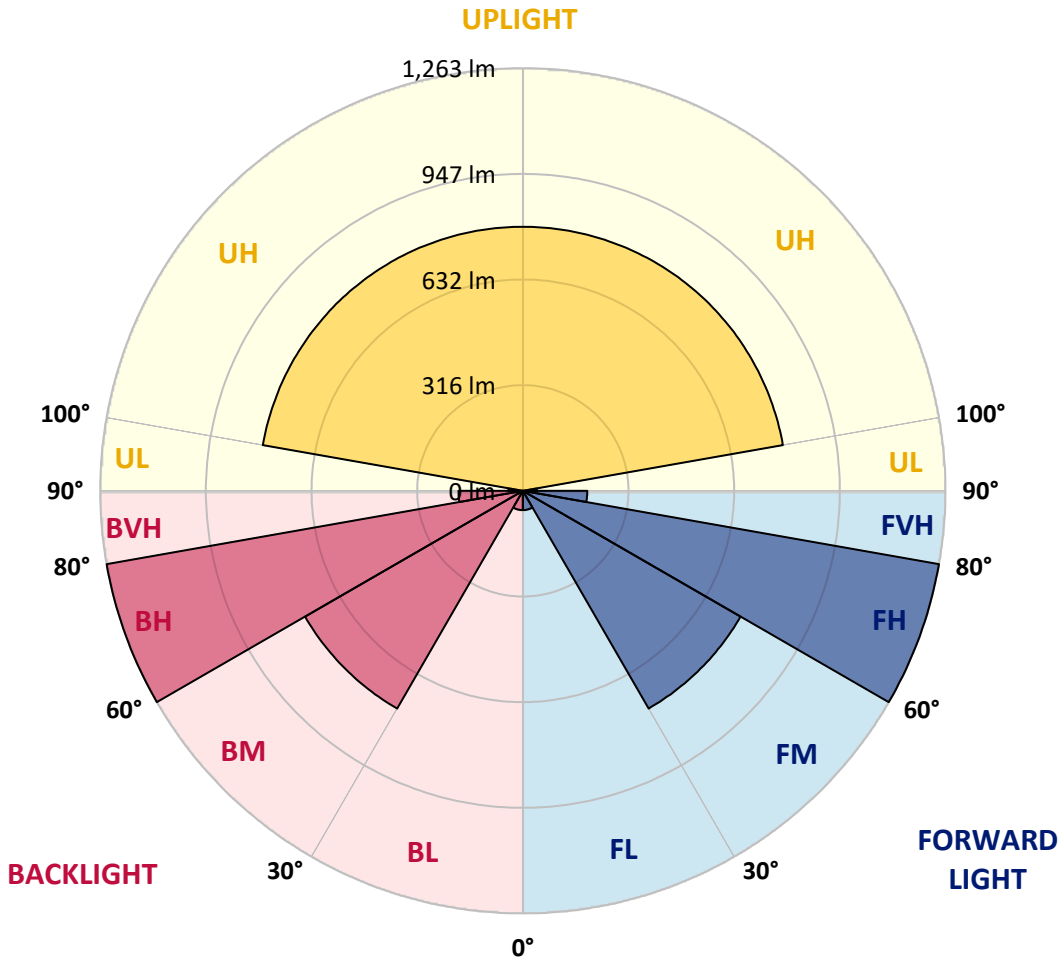
Scaled Data Report

REPORT NUMBER: P821154
CATALOG NUMBER: TT-D3-830-24VDC-RW-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	57.8	1.1			
FM	(30°-60°)	751.6	14.0			
FH	(60°-80°)	1263.2	23.6			G1/1800
FVH	(80°-90°)	192.5	3.6			G2/225
BL	(0°-30°)	57.8	1.1	B0/110		
BM	(30°-60°)	751.6	14.0	B1/1000		
BH	(60°-80°)	1263.2	23.6	B3/2500		G3/2500
BVH	(80°-90°)	192.5	3.6			G2/225
UL	(90°-100°)	42.6	0.8		U2/50	
UH	(100°-180°)	789.1	14.7		U4/1000	

BUG Rating: B3-U4-G3
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7
2.5°	83.8	83.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8	84.8
5°	87.0	87.0	87.0	87.0	88.1	88.1	87.0	87.0	87.0	87.0	87.0
7.5°	92.4	91.3	92.4	92.4	92.4	91.3	91.3	91.3	90.2	90.2	90.2
10°	97.7	97.7	98.8	97.7	97.7	96.7	96.7	96.7	95.6	95.6	95.6
12.5°	105.2	105.2	105.2	105.2	104.2	104.2	103.1	102.0	100.9	100.9	100.9
15°	114.9	113.8	113.8	112.8	111.7	110.6	109.5	109.5	108.5	108.5	108.5
17.5°	124.6	124.6	123.5	122.4	120.3	119.2	119.2	118.1	117.1	117.1	117.1
20°	136.4	136.4	135.3	133.2	131.0	129.9	128.9	128.9	127.8	127.8	127.8
22.5°	150.3	149.3	147.1	145.0	142.8	141.8	140.7	139.6	139.6	139.6	139.6
25°	165.4	164.3	163.2	160.0	156.8	155.7	153.6	153.6	152.5	153.6	153.6
27.5°	183.6	182.6	180.4	177.2	172.9	170.8	169.7	169.7	170.8	170.8	171.8
30°	206.2	204.0	201.9	197.6	193.3	190.1	190.1	191.2	194.4	196.5	196.5
32.5°	233.0	232.0	228.7	224.4	216.9	214.8	216.9	223.4	227.7	230.9	233.0
35°	264.2	263.1	258.8	251.3	245.9	244.9	251.3	262.0	276.0	280.3	282.4
37.5°	298.5	299.6	294.2	285.7	280.3	282.4	295.3	315.7	329.7	339.4	341.5
40°	341.5	343.6	337.2	327.5	322.2	330.8	351.2	374.8	399.5	411.3	414.5
42.5°	392.0	395.2	386.6	376.9	373.7	387.7	416.7	455.3	499.4	513.3	518.7
45°	454.3	456.4	445.7	437.1	434.9	459.6	509.0	573.5	643.3	675.5	680.9
47.5°	528.4	527.3	517.6	506.9	509.0	544.5	618.6	705.6	779.7	829.1	839.8
50°	613.2	607.8	600.3	587.4	601.4	652.9	746.4	851.6	976.2	1020.2	1039.5
52.5°	698.0	688.4	681.9	673.3	698.0	764.6	895.6	1079.3	1267.2	1368.2	1388.6
55°	774.3	766.8	763.5	764.6	803.3	898.9	1070.7	1305.9	1487.4	1571.1	1586.2
57.5°	849.5	845.2	841.9	848.4	909.6	1034.2	1227.5	1447.6	1596.9	1659.2	1669.9
60°	920.3	924.6	922.5	941.8	1015.9	1141.6	1309.1	1526.0	1669.9	1726.8	1738.7
62.5°	998.7	1002.0	1002.0	1023.4	1083.6	1194.2	1364.9	1618.4	1800.9	1884.7	1897.6
65°	1066.4	1068.5	1072.8	1073.9	1129.7	1240.4	1463.7	1703.2	1866.4	1963.1	1971.7
67.5°	1116.9	1119.0	1113.6	1108.3	1151.2	1251.1	1456.2	1692.5	1837.5	1910.5	1916.9
70°	1157.7	1148.0	1133.0	1106.1	1120.1	1195.3	1393.9	1606.6	1752.6	1818.1	1827.8
72.5°	1163.0	1154.4	1107.2	1047.1	1029.9	1095.4	1284.4	1475.5	1601.2	1663.5	1664.6
75°	1130.8	1108.3	1029.9	939.7	907.4	969.7	1131.9	1305.9	1406.8	1459.4	1464.8
77.5°	1022.4	1000.9	902.1	799.0	762.5	816.2	953.6	1094.3	1191.0	1242.5	1245.7
80°	830.1	822.6	732.4	637.9	593.9	625.0	745.3	855.9	934.3	995.5	1000.9
82.5°	612.1	605.7	537.0	454.3	418.8	444.6	530.5	612.1	685.2	734.6	737.8
85°	382.3	369.4	326.5	268.5	244.9	262.0	318.9	373.7	439.2	477.9	480.0
87.5°	127.8	122.4	105.2	87.0	73.0	76.2	93.4	113.8	166.5	183.6	194.4
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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CATALOG NUMBER: TT-D3-830-24VDC-RW-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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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

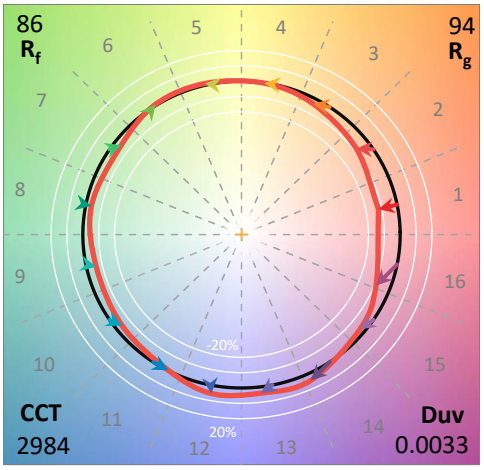
Test Information

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

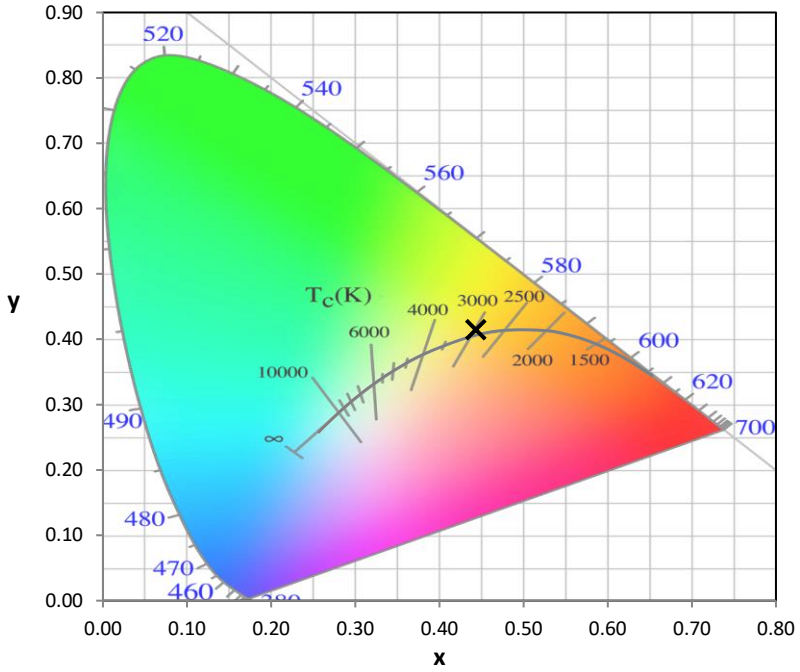
Stabilization Time:	29M
Operation Time:	1H 29M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-7

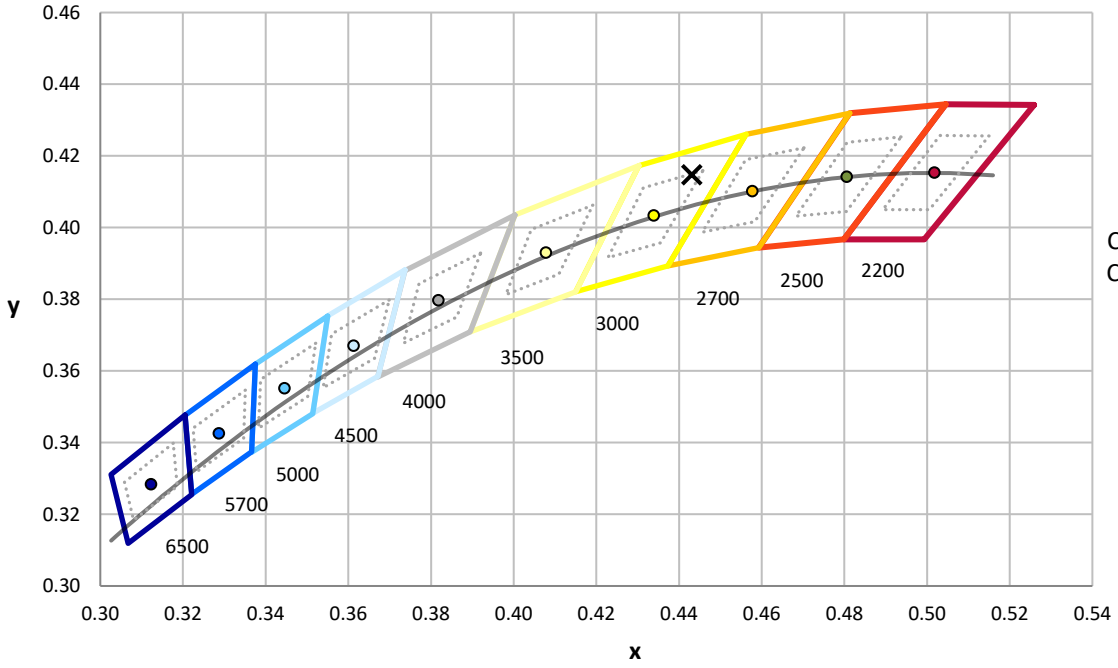
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

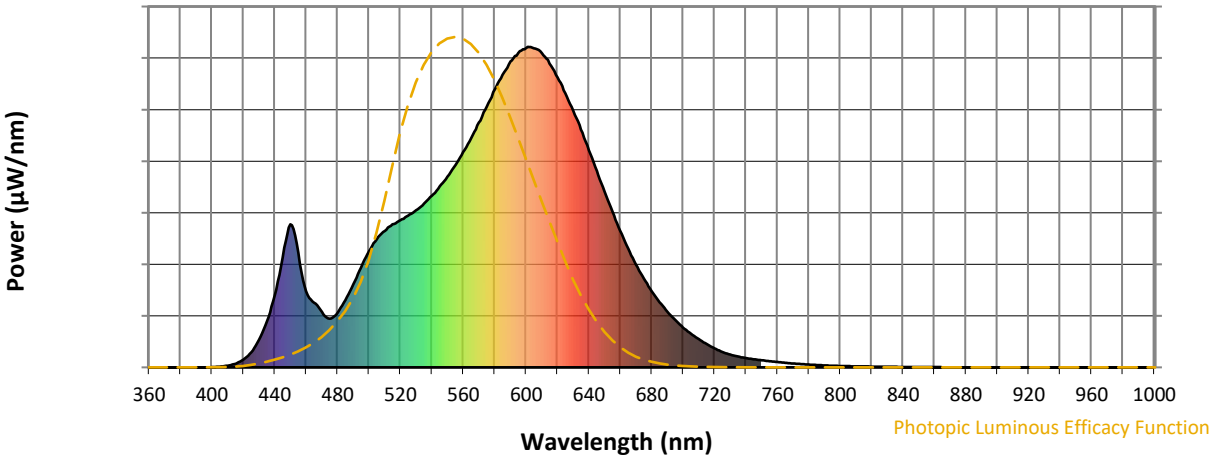


CCT = 2984K
CIE x = 0.4431
CIE y = 0.4147
Duv = 0.0033

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-7

Photopic Flux vs. Wavelength

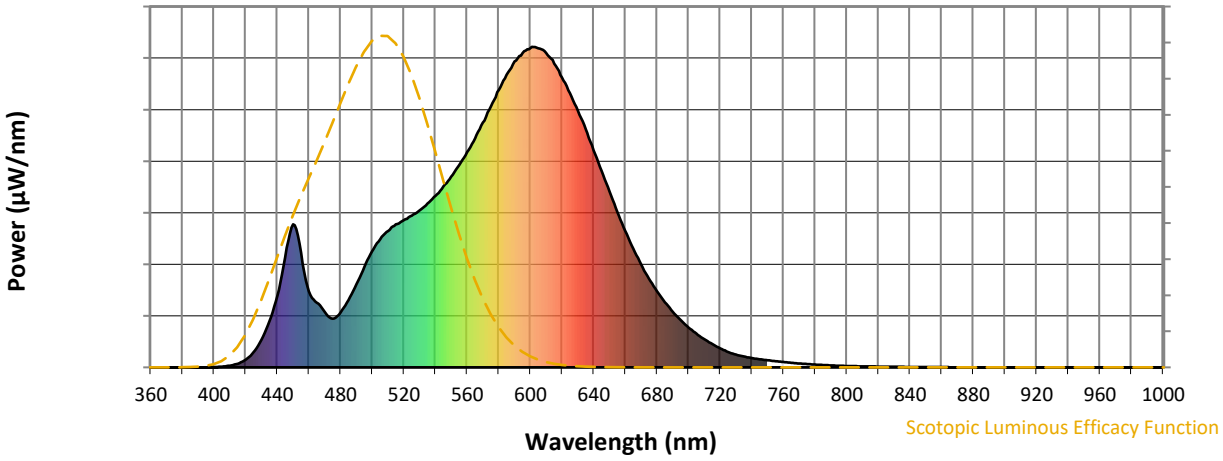


Photopic Lumens: NR

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

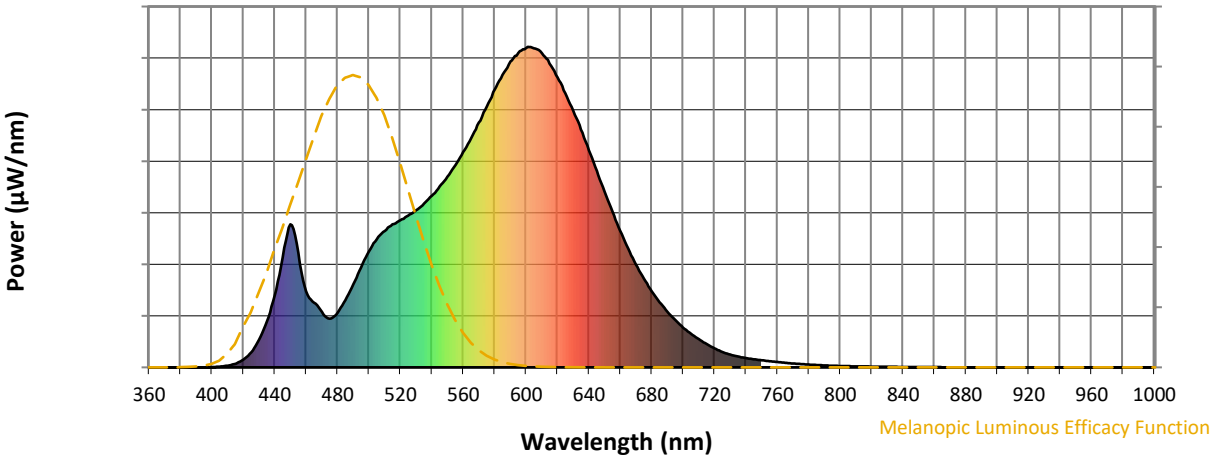


Scotopic Lumens: NR **S/P: 1.32**

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			

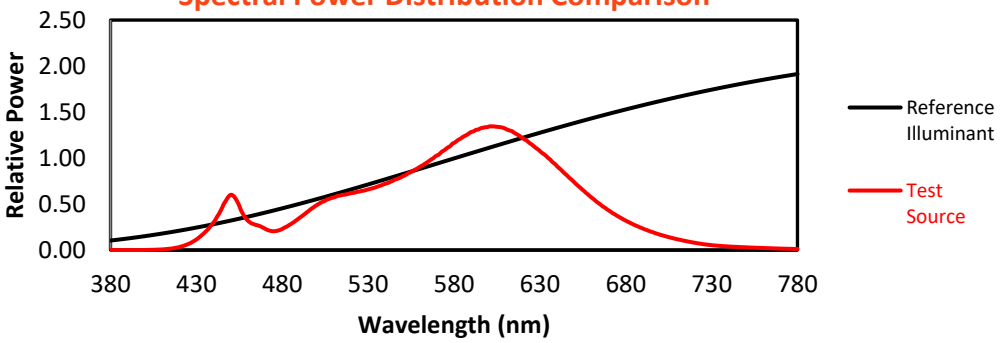
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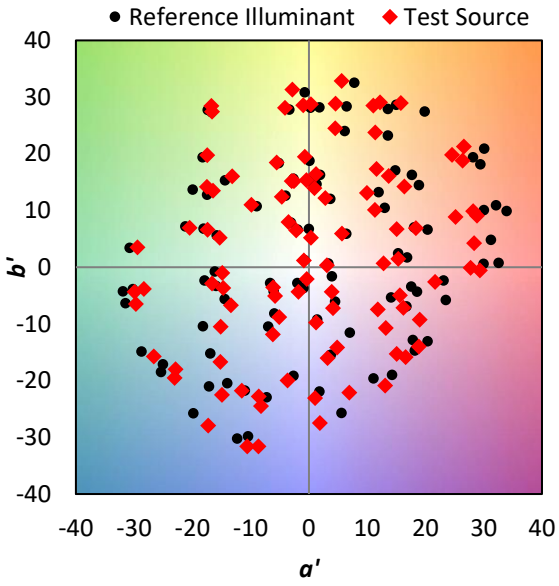
Summary

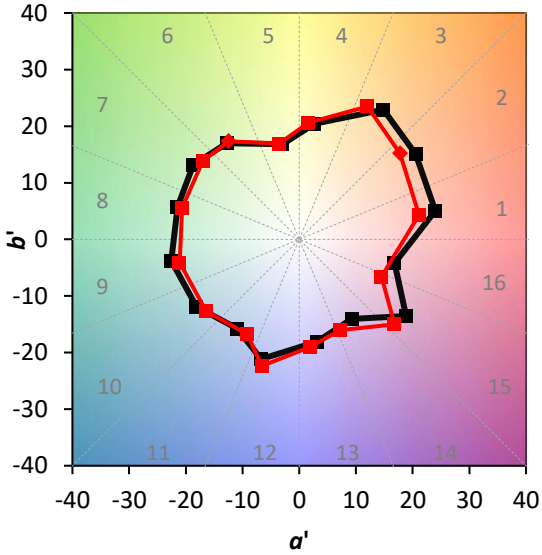
R_f = 85.8
R_g = 94.1
CIE R_a = 81.8
R_9 = -1.1

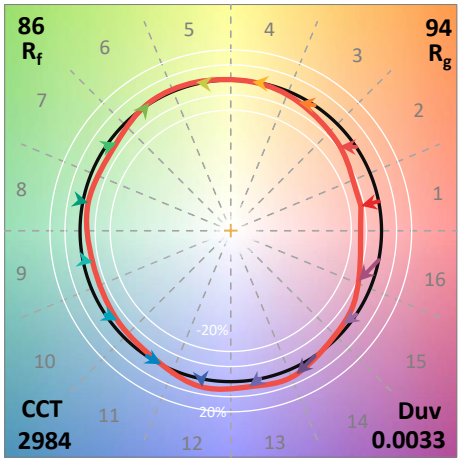
Spectral Power Distribution Comparison

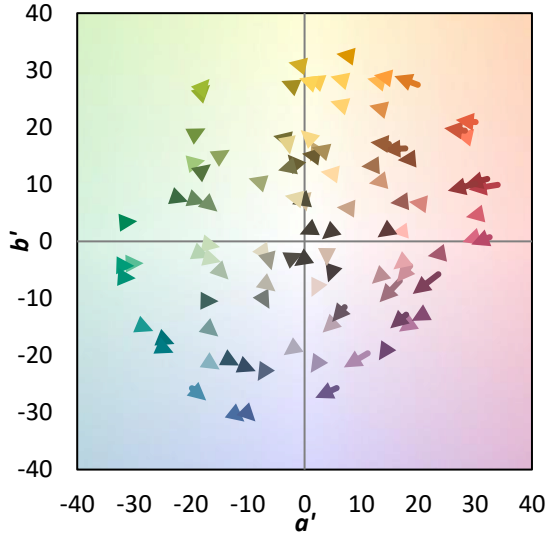


Color Vector Graphics







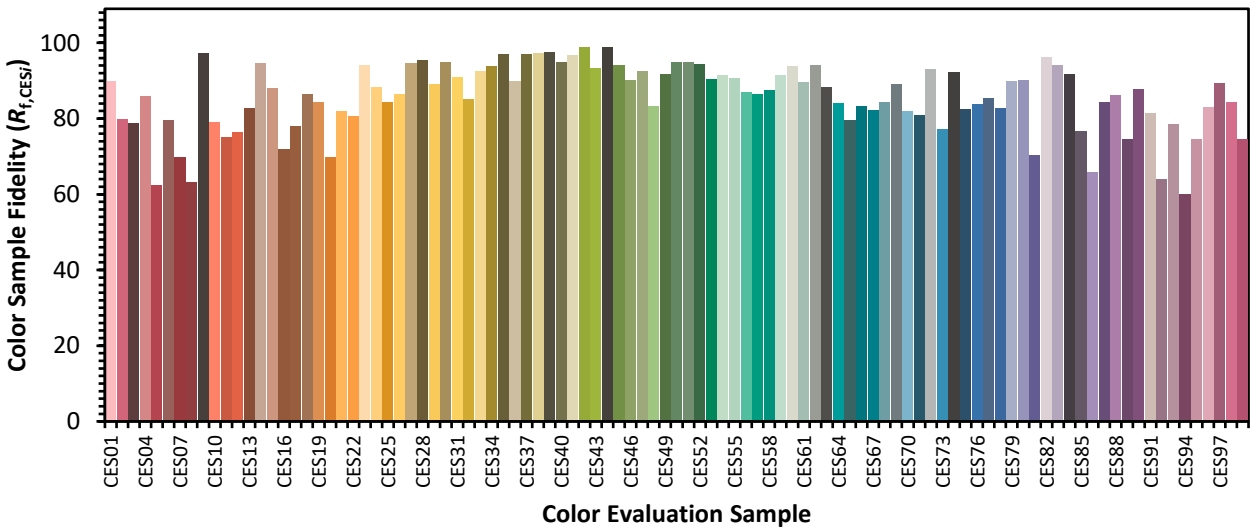


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Individual Sample Fidelity Index ($R_{f,i}$)

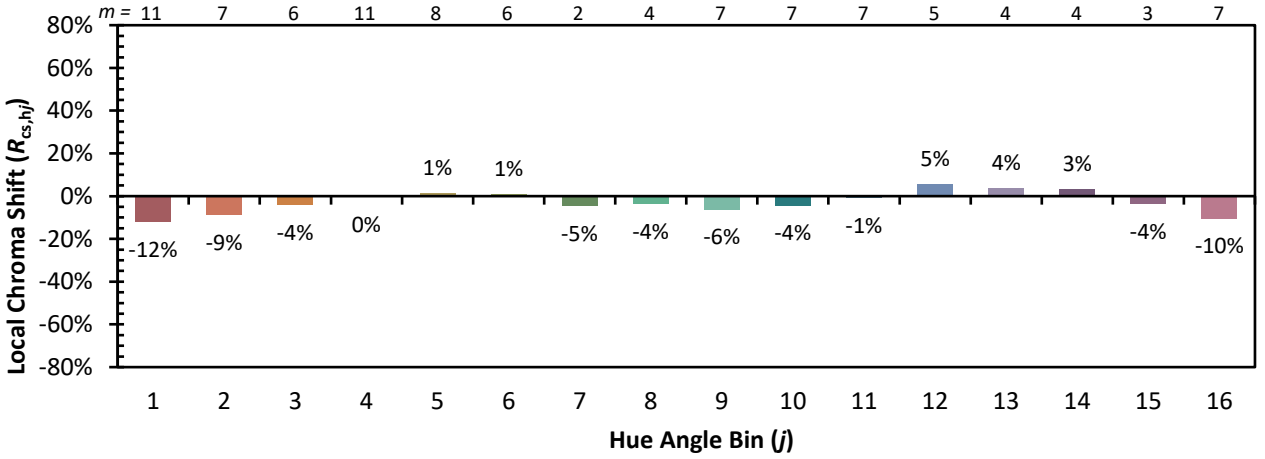
CES01 = 86	CES26 = 86	CES51 = 95	CES76 = 84
CES02 = 63	CES27 = 95	CES52 = 94	CES77 = 86
CES03 = 31	CES28 = 95	CES53 = 90	CES78 = 83
CES04 = 70	CES29 = 89	CES54 = 91	CES79 = 90
CES05 = 50	CES30 = 95	CES55 = 91	CES80 = 90
CES06 = 51	CES31 = 91	CES56 = 87	CES81 = 70
CES07 = 42	CES32 = 85	CES57 = 86	CES82 = 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	

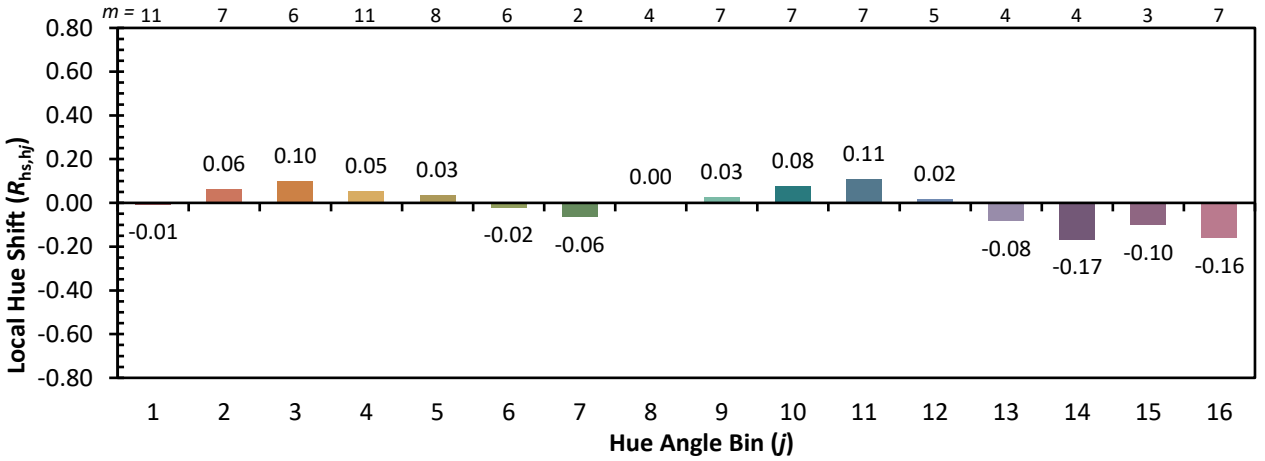


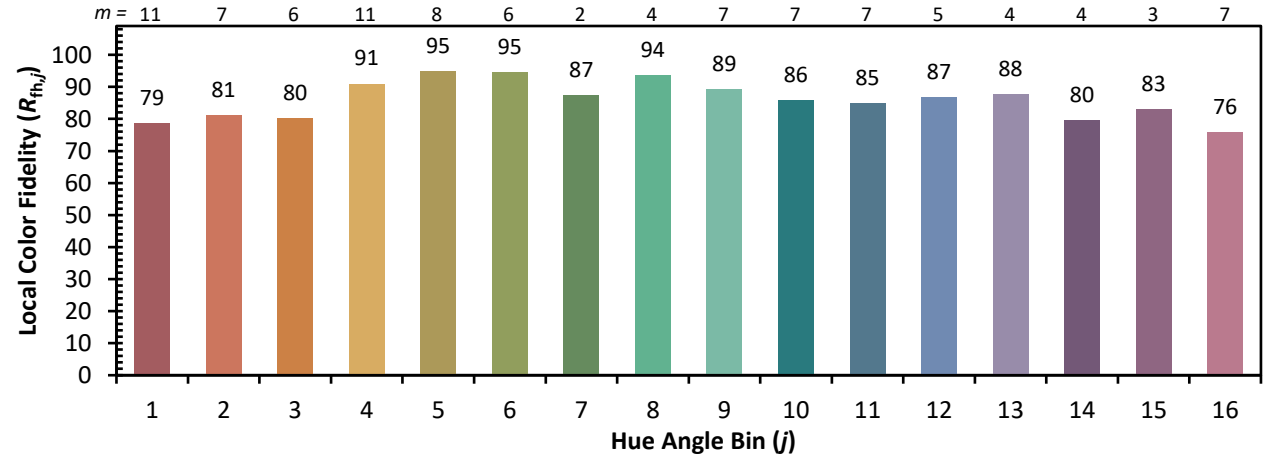
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Color Rendition by Hue-Angle Bin



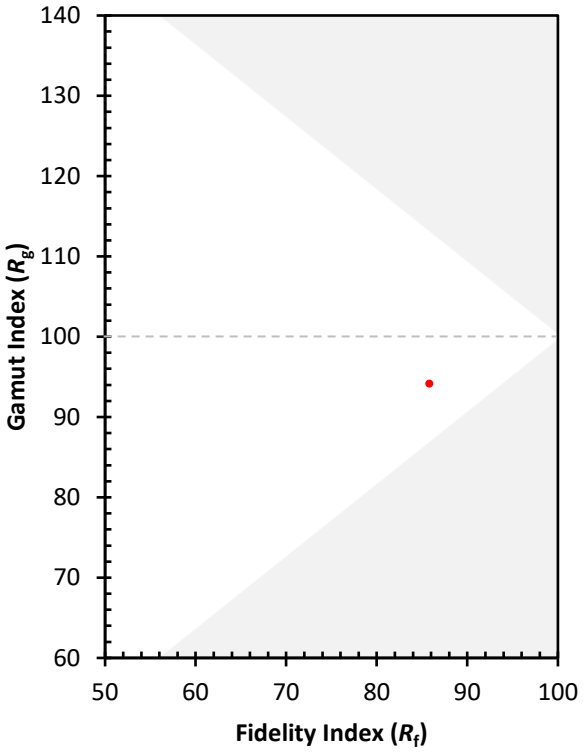


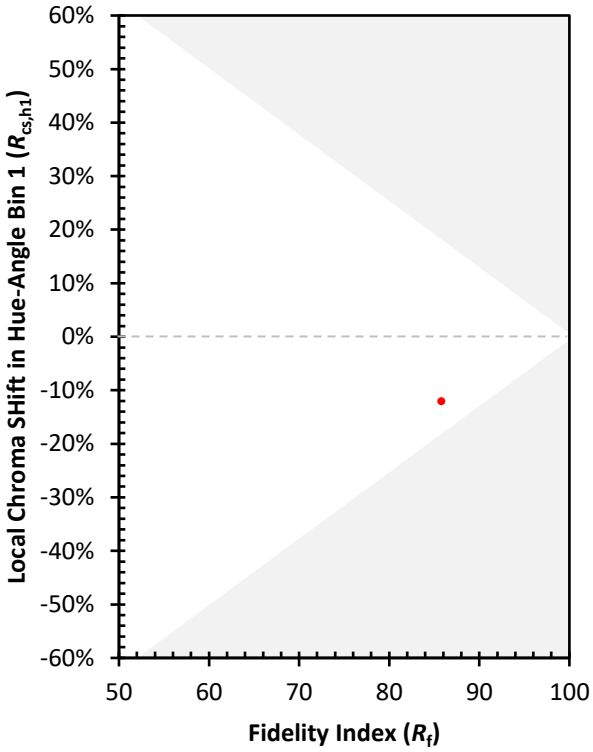


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Measure Comparisons





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