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: P821448

Luminaire Tested: **TT-D2-830-12VDC-MQ-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:	P821448
	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-D2-830-12VDC-MQ-UPL
Description:	TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
	3000K, 80 CRI LEDS AND MEDIUM DISTRIBUTION
Light Source:	-
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	5799.7 lumens
Efficiency:	N/A
Efficacy:	152.6 lumens/watt
Luminous Opening:	Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification:	Type V - Short
BUG Rating:	B2 - U4 - G2

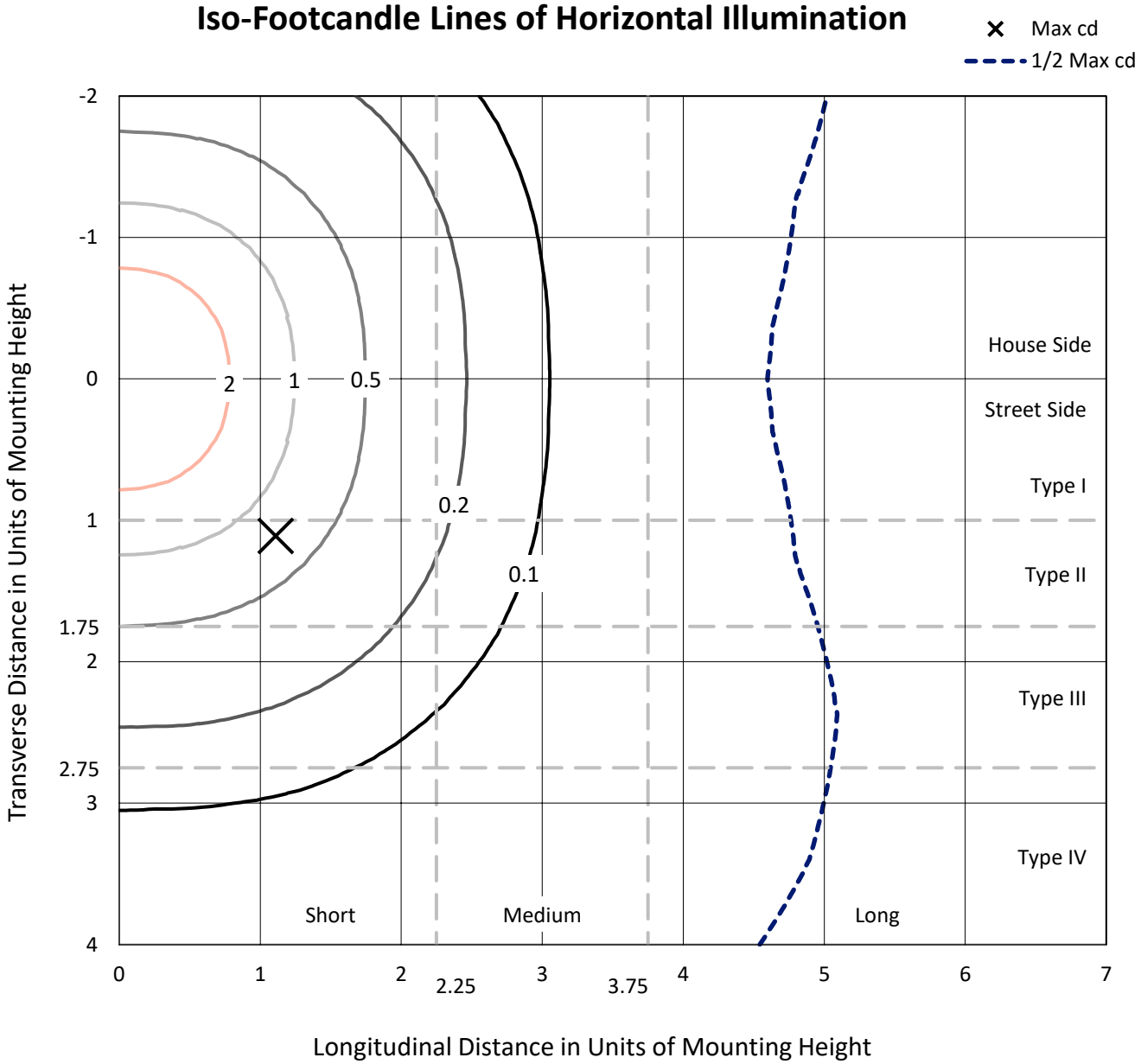
Input Watts (W):	38
Input Voltage (V):	NR
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	25 FT

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Scaled Data Report

REPORT NUMBER: P821448
CATALOG NUMBER: TT-D2-830-12VDC-MQ-UPL

Iso-Footcandle Lines of Horizontal Illumination



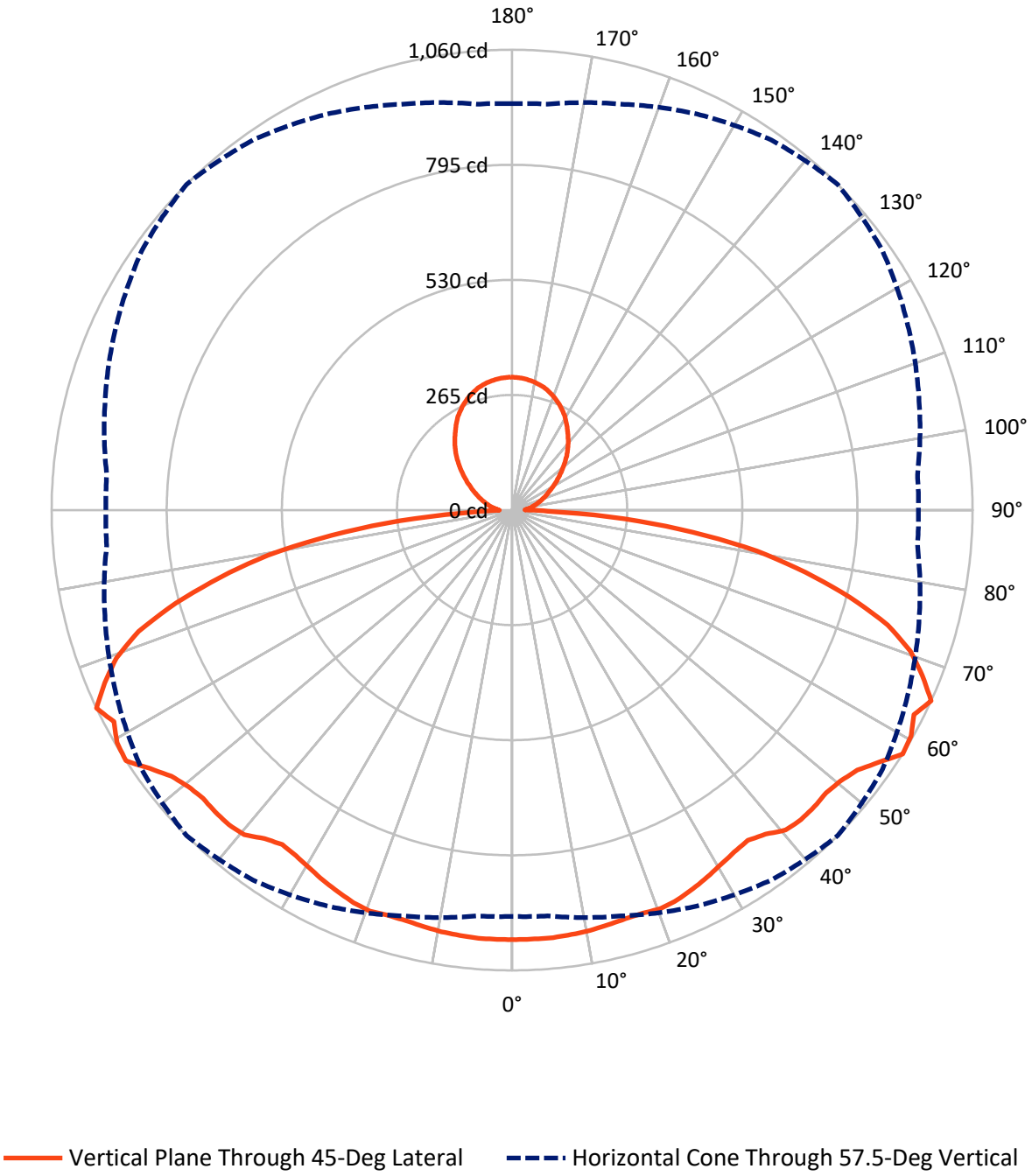
Based on 15 foot mounting height. Maximum calculated value = 4.4 fc
Type V - Short - N/A

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REPORT NUMBER: P821448
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Luminous Intensity Polar Plot



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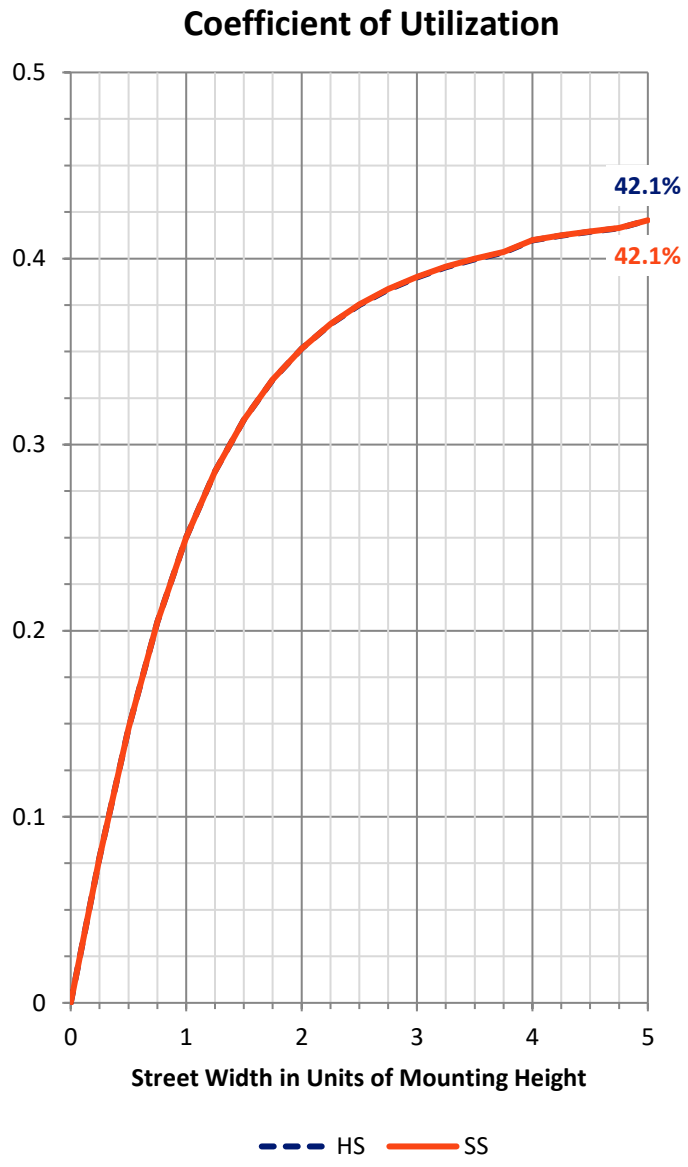
REPORT NUMBER: P821448
CATALOG NUMBER: TT-D2-830-12VDC-MQ-UPL

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2484.0	415.9	2899.9
	% Fixture	42.8	7.2	50.0
Street Side	Lumens	2484.0	415.9	2899.9
	% Fixture	42.8	7.2	50.0
Total	Lumens	4968.0	831.7	5799.7
	% Fixture	85.7	14.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.2	1.6
10°-20°	277.1	4.8
20°-30°	445.3	7.7
30°-40°	587.8	10.1
40°-50°	735.4	12.7
50°-60°	874.7	15.1
60°-70°	948.8	16.4
70°-80°	755.2	13.0
80°-90°	249.5	4.3
90°-100°	42.6	0.7
100°-110°	66.0	1.1
110°-120°	91.9	1.6
120°-130°	119.0	2.1
130°-140°	138.7	2.4
140°-150°	140.5	2.4
150°-160°	121.9	2.1
160°-170°	82.2	1.4
170°-180°	28.9	0.5
0°-90°	4968.0	85.7
0°-180°	5799.7	100.0



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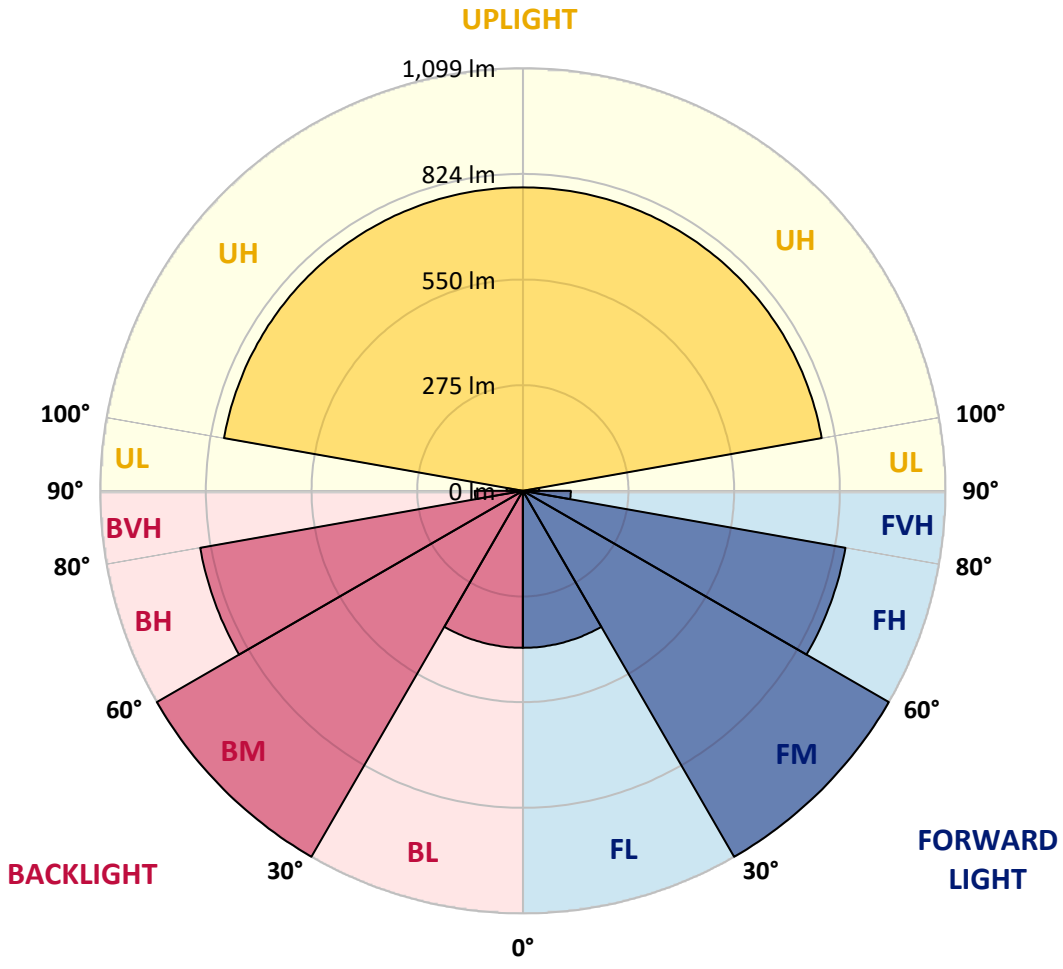
Scaled Data Report

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CATALOG NUMBER: TT-D2-830-12VDC-MQ-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	408.3	7.0			
FM	(30°-60°)	1099.0	18.9			
FH	(60°-80°)	852.0	14.7			G1/1800
FVH	(80°-90°)	124.7	2.2			G2/225
BL	(0°-30°)	408.3	7.0	B1/500		
BM	(30°-60°)	1099.0	18.9	B2/2500		
BH	(60°-80°)	852.0	14.7	B2/1000		G1/1800
BVH	(80°-90°)	124.7	2.2			G2/225
UL	(90°-100°)	42.6	0.7		U2/50	
UH	(100°-180°)	789.1	13.6		U4/1000	

BUG Rating: B2-U4-G2
Type V Short



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Scaled Data Report

REPORT NUMBER: P821448
CATALOG NUMBER: TT-D2-830-12VDC-MQ-UPL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	988.7	988.7	988.7	988.7	988.7	988.7	988.7	988.7	988.7	988.7	988.7
2.5°	990.2	989.4	990.2	989.4	989.4	988.7	989.4	989.4	989.4	989.4	989.4
5°	989.4	988.7	988.7	989.4	988.7	988.7	988.7	988.7	988.7	988.7	988.7
7.5°	986.5	986.5	987.2	986.5	986.5	986.5	986.5	986.5	986.5	987.2	987.2
10°	984.2	983.5	984.2	984.2	983.5	984.2	983.5	984.2	984.2	984.2	984.2
12.5°	981.3	980.6	981.3	981.3	980.6	979.8	980.6	980.6	981.3	981.3	981.3
15°	976.1	976.1	977.6	976.9	976.9	976.1	977.6	976.9	976.1	976.9	976.9
17.5°	972.4	972.4	973.9	975.4	975.4	975.4	975.4	974.6	973.2	973.9	972.4
20°	973.2	973.9	974.6	976.9	978.3	979.1	979.1	976.9	974.6	975.4	974.6
22.5°	971.0	970.2	971.0	972.4	974.6	974.6	974.6	971.7	971.0	970.2	970.2
25°	962.1	962.1	963.6	965.0	966.5	965.8	966.5	965.0	963.6	962.1	962.1
27.5°	951.8	951.8	954.0	955.4	956.9	956.9	956.2	954.7	954.0	952.5	951.8
30°	941.4	941.4	943.6	945.1	947.3	946.6	946.6	944.4	942.2	940.7	940.7
32.5°	930.3	929.6	931.8	935.5	938.5	938.5	938.5	934.0	931.1	929.6	928.9
35°	920.7	920.7	923.7	930.3	934.0	934.0	932.6	929.6	923.0	920.7	920.7
37.5°	917.8	920.0	928.1	937.7	945.1	946.6	944.4	936.3	927.4	920.7	918.5
40°	927.4	929.6	939.9	955.4	966.5	968.7	966.5	954.7	939.2	928.9	928.1
42.5°	928.9	930.3	942.9	960.6	971.0	974.6	971.0	959.1	942.2	929.6	928.9
45°	923.7	924.4	939.2	957.7	970.2	974.6	970.2	956.2	938.5	924.4	923.7
47.5°	917.1	918.5	934.8	954.0	969.5	972.4	968.7	953.2	933.3	919.3	917.1
50°	911.9	916.3	931.1	952.5	971.0	979.8	971.0	950.3	930.3	914.8	911.9
52.5°	914.8	916.3	935.5	965.8	990.9	994.6	990.2	965.8	934.0	916.3	914.1
55°	923.7	930.3	951.0	994.6	1017.5	1024.1	1014.5	993.1	951.8	930.3	923.7
57.5°	935.5	937.7	967.3	1005.7	1039.6	1059.6	1040.4	1004.9	969.5	936.3	934.8
60°	925.9	919.3	956.2	1001.2	1047.0	1055.1	1044.1	1002.0	954.7	918.5	925.2
62.5°	900.1	904.5	934.8	996.8	1028.5	1037.4	1025.6	996.8	933.3	908.2	897.9
65°	879.4	906.0	939.2	983.5	1034.5	1059.6	1035.2	982.0	940.7	901.5	877.2
67.5°	850.6	855.8	905.2	959.9	1005.7	1018.2	1004.9	960.6	900.8	852.1	855.8
70°	801.9	794.5	844.7	908.2	951.8	971.7	953.2	905.2	842.5	793.0	799.7
72.5°	721.4	725.8	772.3	839.5	884.6	903.8	885.3	834.4	770.9	730.2	725.8
75°	637.2	642.4	687.4	748.7	794.5	802.6	797.4	745.0	688.9	641.6	637.2
77.5°	541.2	546.4	583.3	650.5	677.8	690.4	679.3	654.2	581.8	545.7	539.7
80°	434.9	433.4	465.9	523.5	557.5	571.5	557.5	525.0	464.4	436.4	426.8
82.5°	310.9	312.3	342.6	382.5	415.0	419.4	412.7	386.2	339.6	316.0	302.7
85°	172.8	179.4	201.6	231.1	252.5	259.9	248.8	223.7	200.8	182.4	176.5
87.5°	41.3	45.0	52.4	66.5	74.6	82.0	74.6	69.4	49.5	45.0	41.3
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: P821448
CATALOG NUMBER: TT-D2-830-12VDC-MQ-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

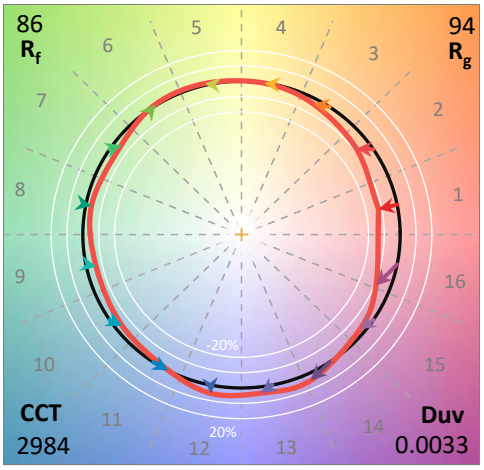
Test Information

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

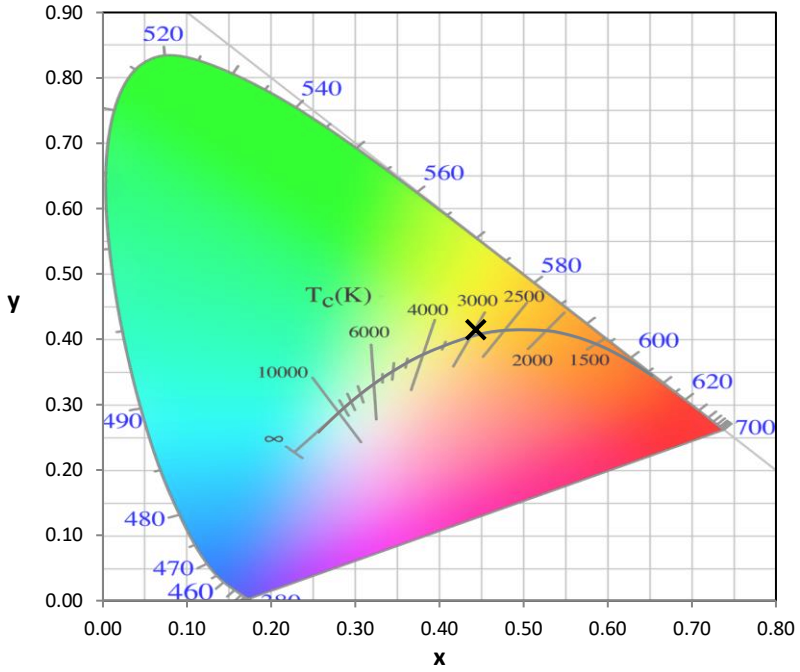
Stabilization Time:	29M
Operation Time:	1H 29M
Sphere Temperature (°C):	25.2

REPORT NUMBER: SP1-2407-176-7

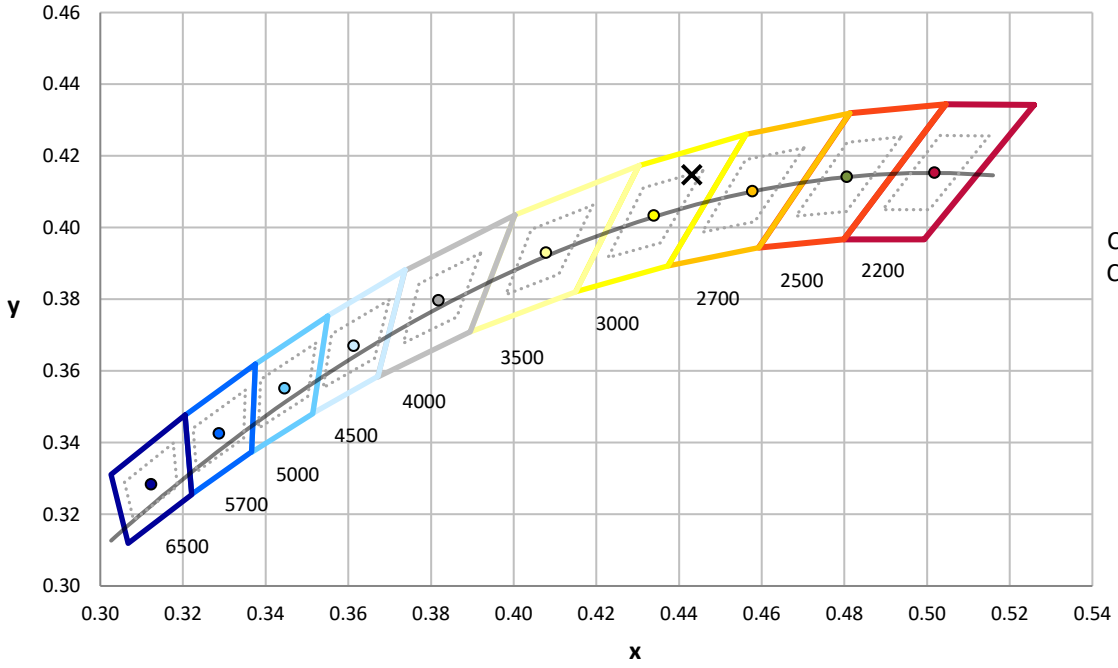
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085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

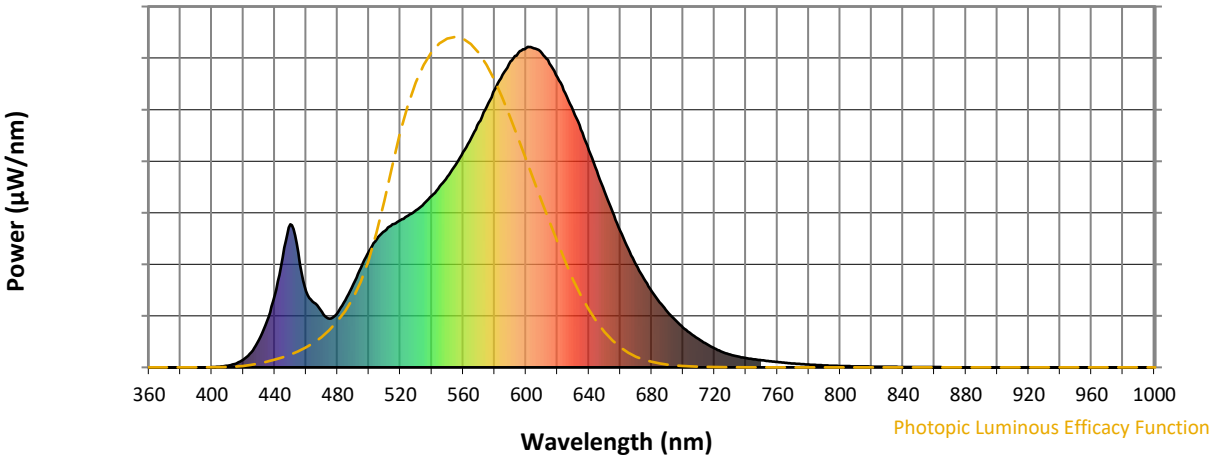


CCT = 2984K
CIE x = 0.4431
CIE y = 0.4147
Duv = 0.0033

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-176-7

Photopic Flux vs. Wavelength

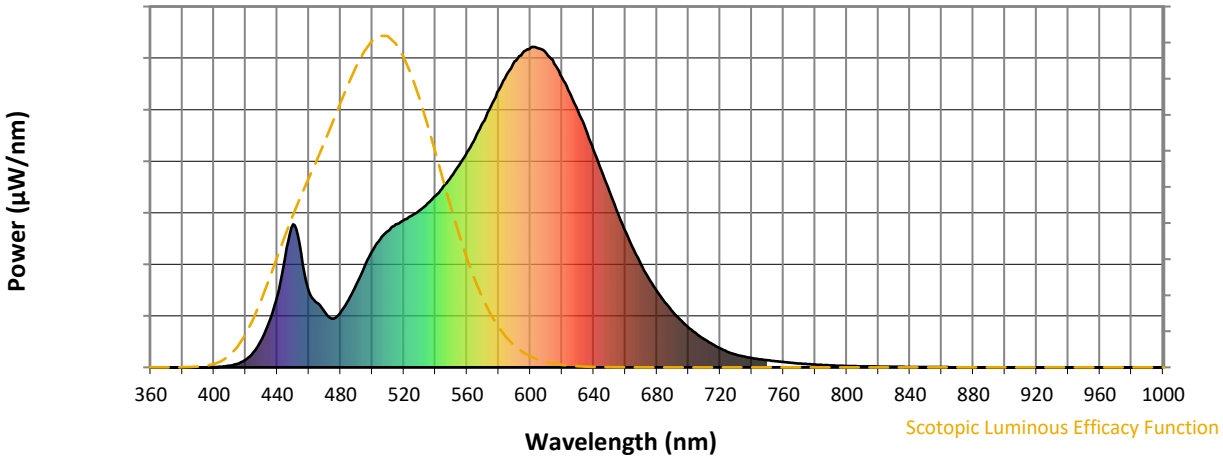


Photopic Lumens: NR

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

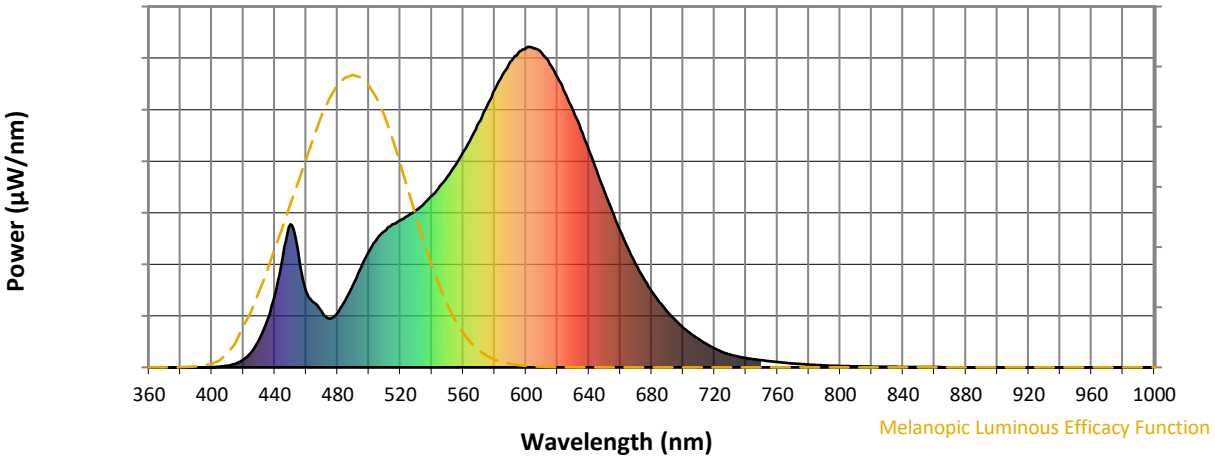


Scotopic Lumens: NR **S/P: 1.32**

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			

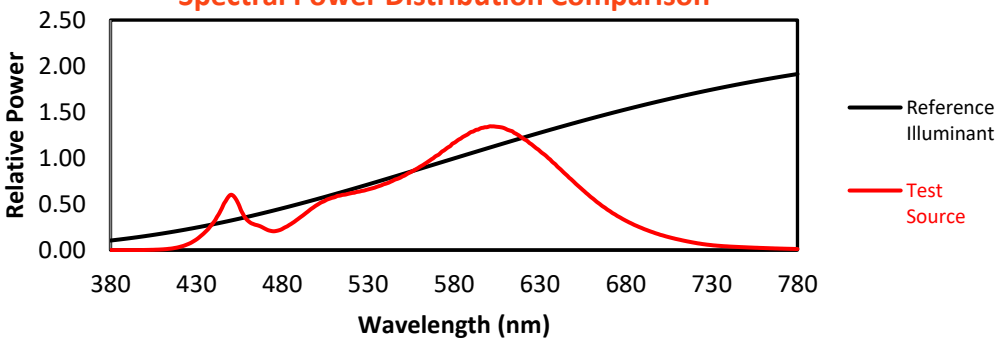
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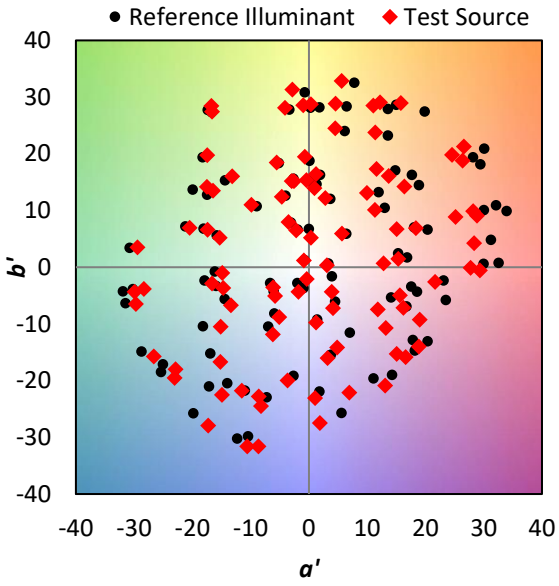
Summary

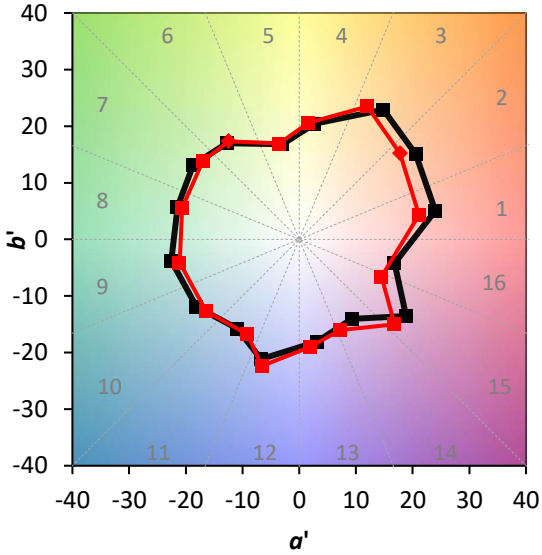
R_f = 85.8
R_g = 94.1
CIE R_a = 81.8
R_9 = -1.1

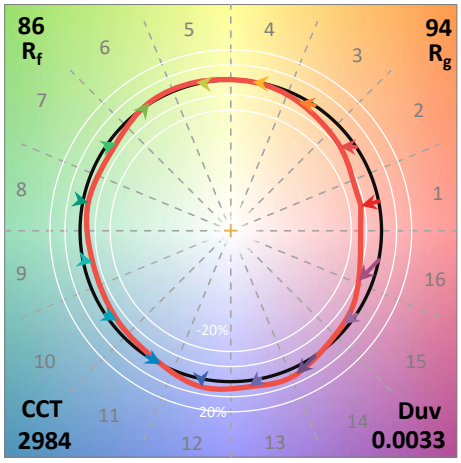
Spectral Power Distribution Comparison

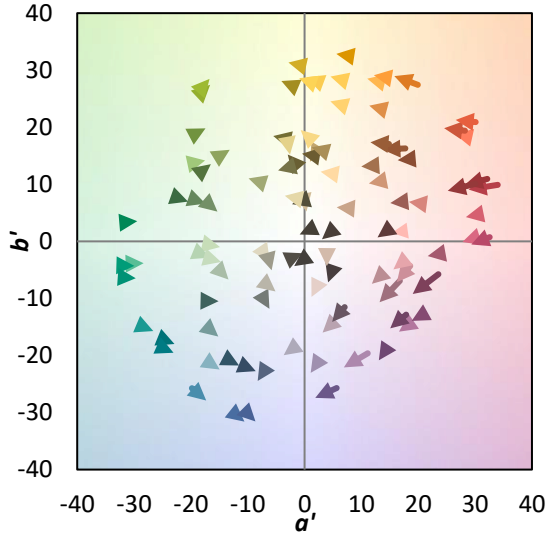


Color Vector Graphics







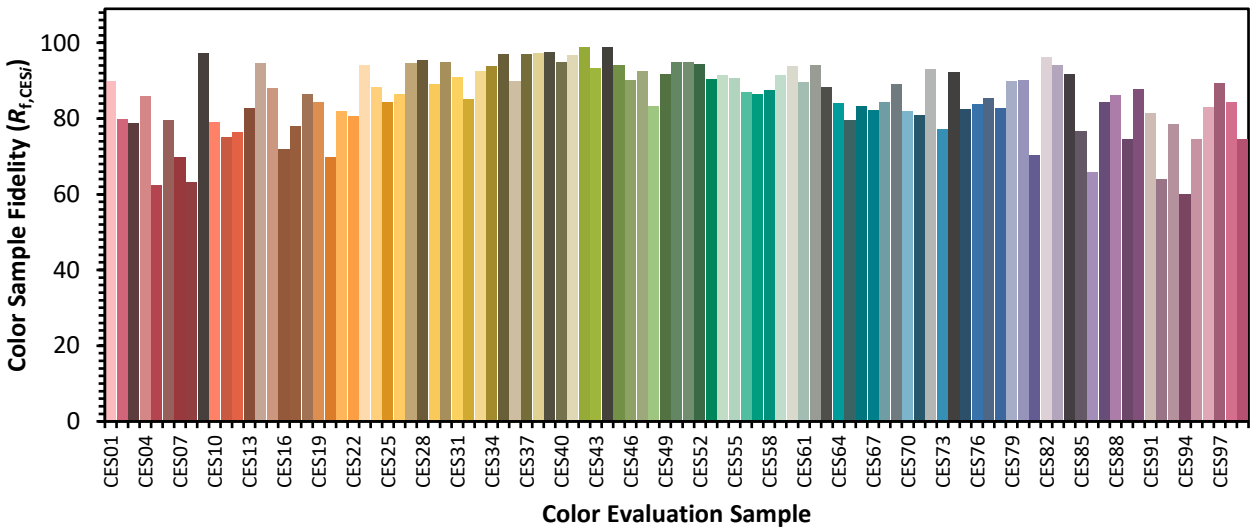


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Individual Sample Fidelity Index ($R_{f,i}$)

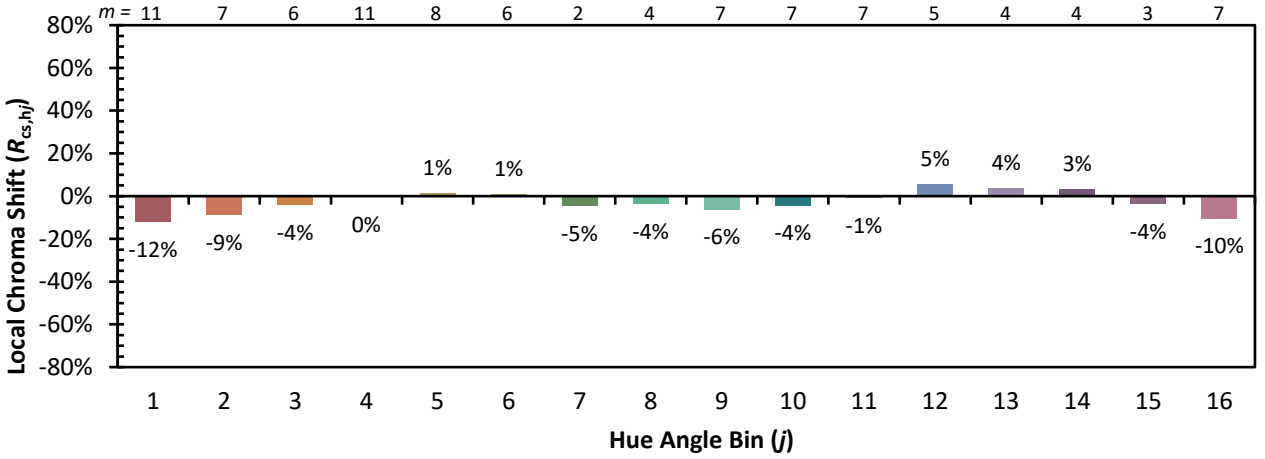
CES01 = 86	CES26 = 86	CES51 = 95	CES76 = 84
CES02 = 63	CES27 = 95	CES52 = 94	CES77 = 86
CES03 = 31	CES28 = 95	CES53 = 90	CES78 = 83
CES04 = 70	CES29 = 89	CES54 = 91	CES79 = 90
CES05 = 50	CES30 = 95	CES55 = 91	CES80 = 90
CES06 = 51	CES31 = 91	CES56 = 87	CES81 = 70
CES07 = 42	CES32 = 85	CES57 = 86	CES82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

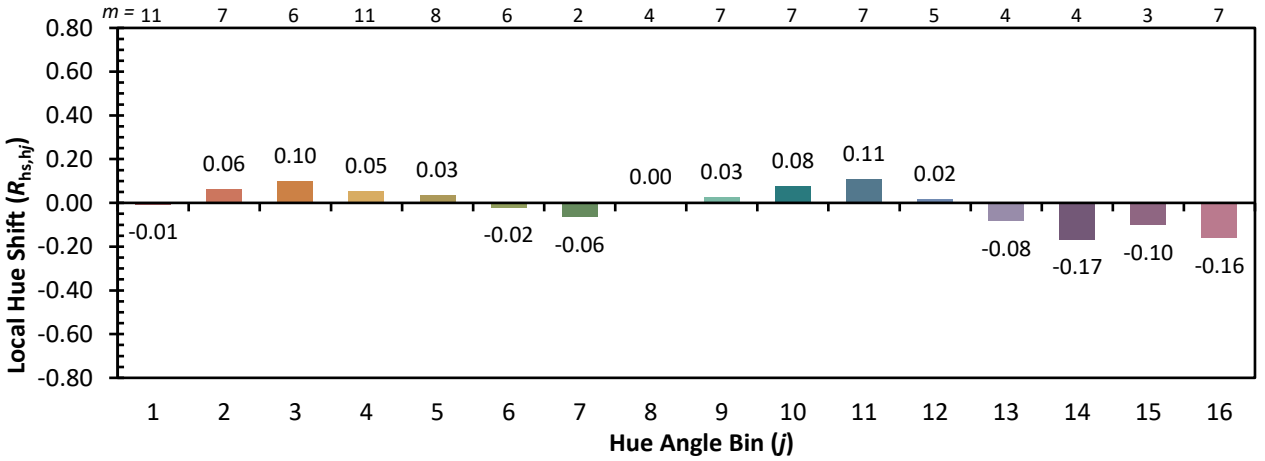


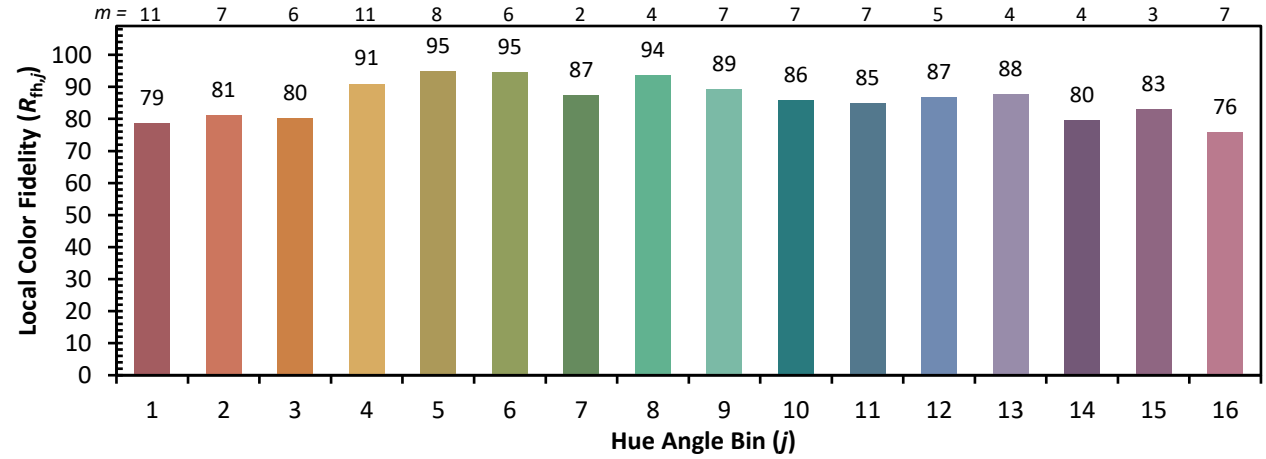
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Color Rendition by Hue-Angle Bin



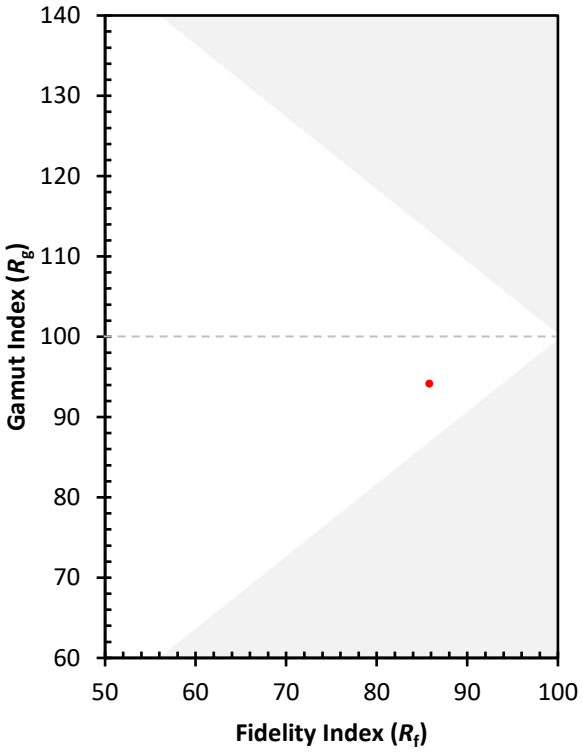


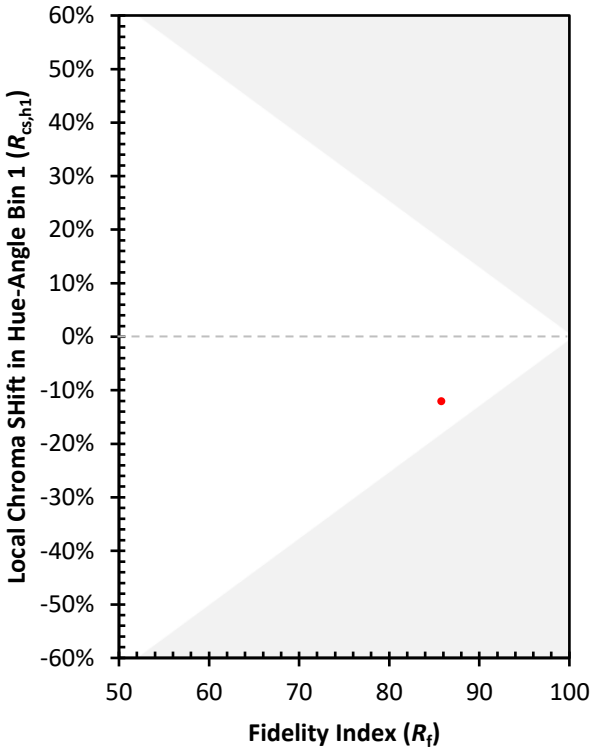


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Measure Comparisons





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