

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

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Peachtree City, GA 30269

Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P1445239

Luminaire Tested: TPTN-VA2-830-U-DL-GM

Issue Date: 05/21/2026

Test Information

Test Method: LM-79-2024
Report Number: P1445239
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/21/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: MCGRAW-EDISON
Catalog Number: TPTN-VA2-830-U-DL-GM
Description: TOPTIER NANO SPIDER MOUNT VISUAL COMFORT LED LUMINAIRE 42W 80CRI 3000K w/
DRIVE LANE TYPE IV DISTRIBUTION OPTIC
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3372.9 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Luminous Opening: Circular (Dia: 0.71' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

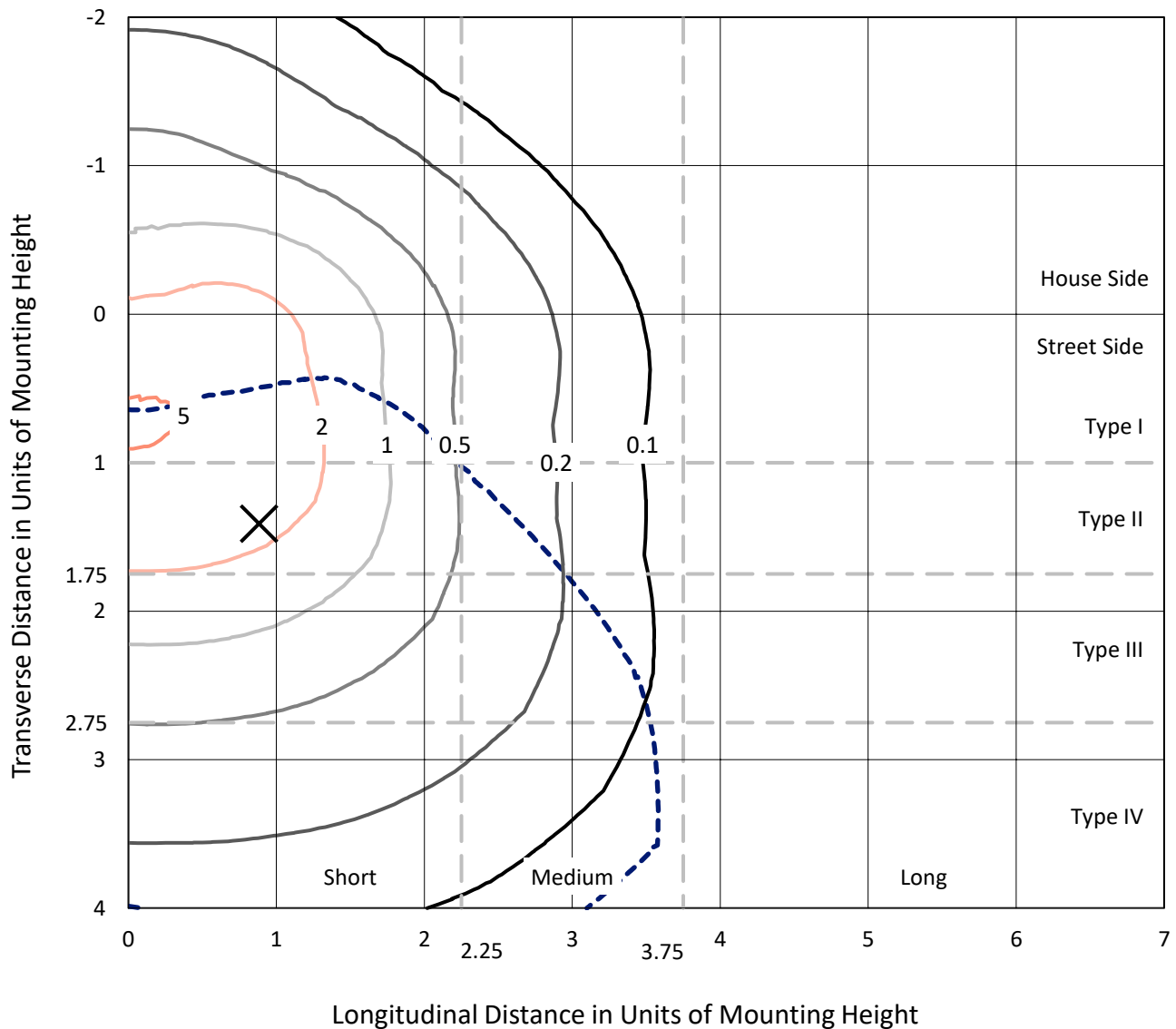
Input Watts (W): 42.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.98
Total Harmonic Distortion (THDi): 7.5%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

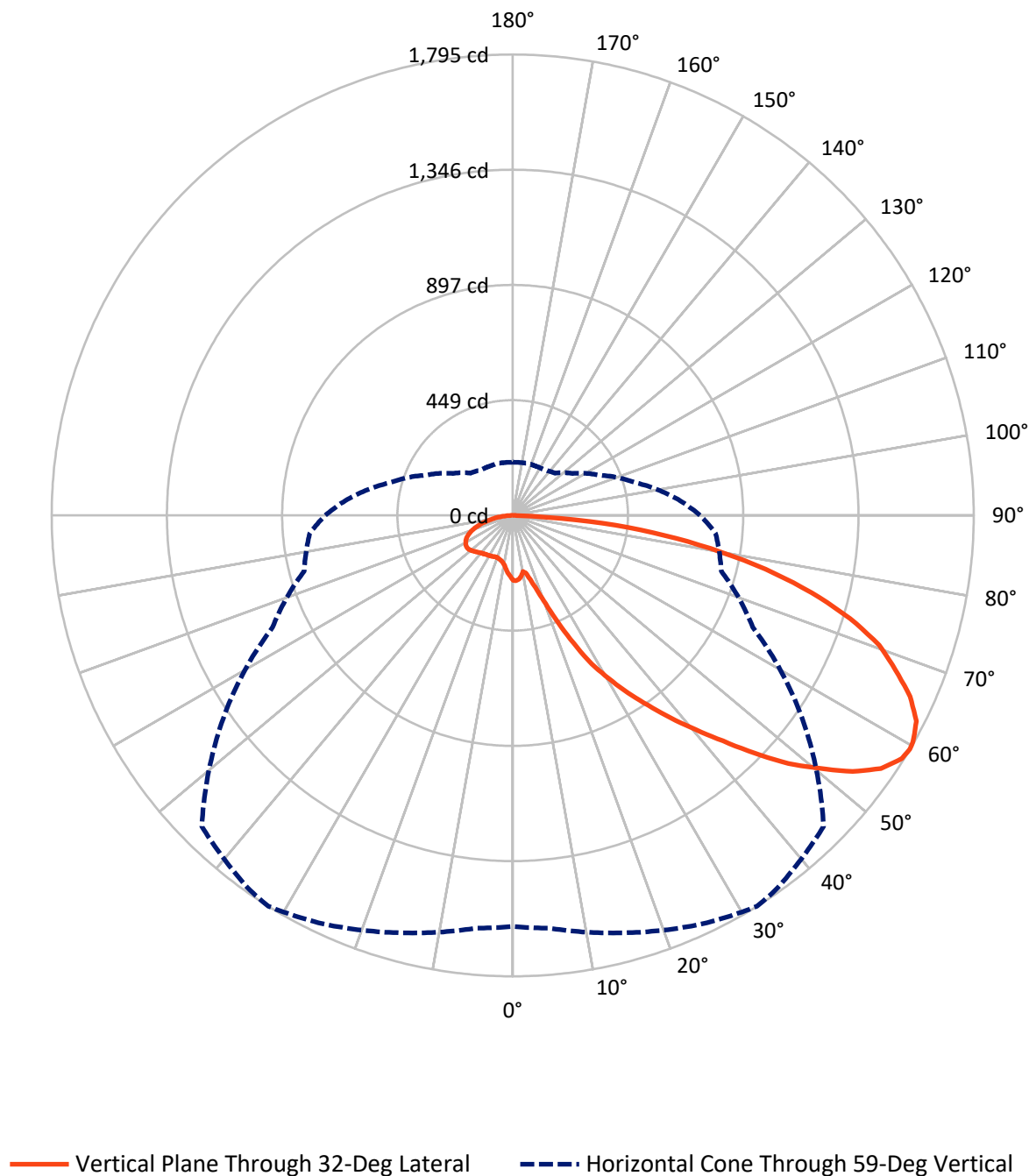


Based on 10 foot mounting height. Maximum calculated value = 5.4 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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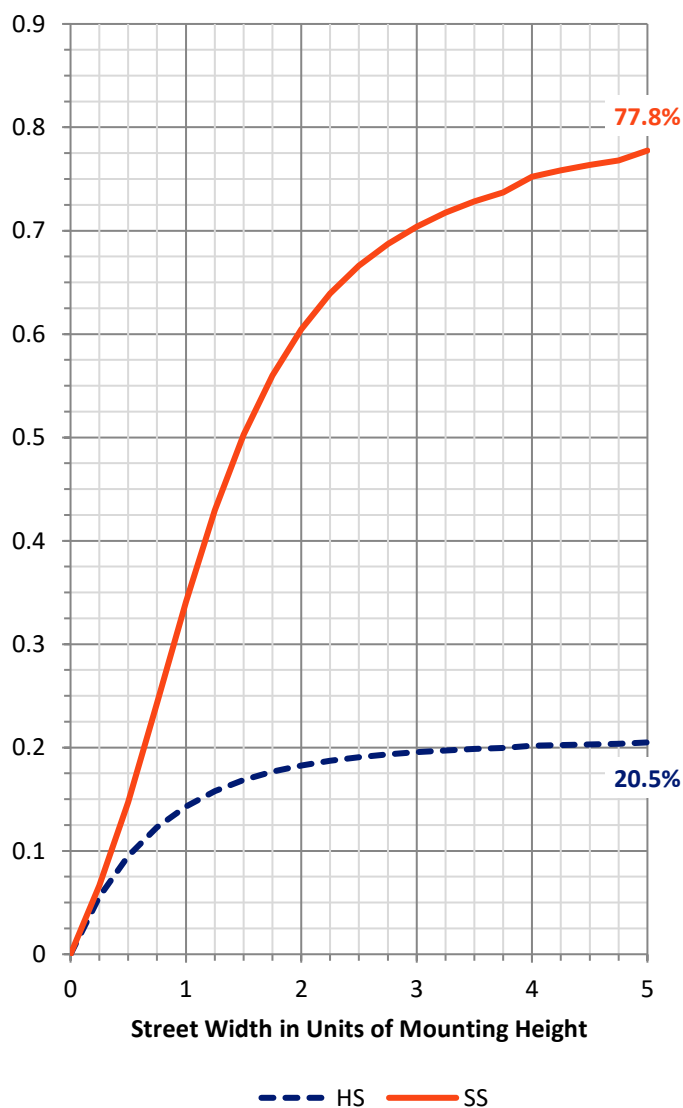
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	701.3	0.0	701.3
	% Fixture	20.8	0.0	20.8
Street Side	Lumens	2671.5	0.0	2671.5
	% Fixture	79.2	0.0	79.2
Total	Lumens	3372.9	0.0	3372.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.0	0.7
10°-20°	66.5	2.0
20°-30°	163.5	4.8
30°-40°	320.8	9.5
40°-50°	533.6	15.8
50°-60°	753.4	22.3
60°-70°	791.3	23.5
70°-80°	570.7	16.9
80°-90°	151.0	4.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	3372.9	100.0
0°-180°	3372.9	100.0

Coefficient of Utilization



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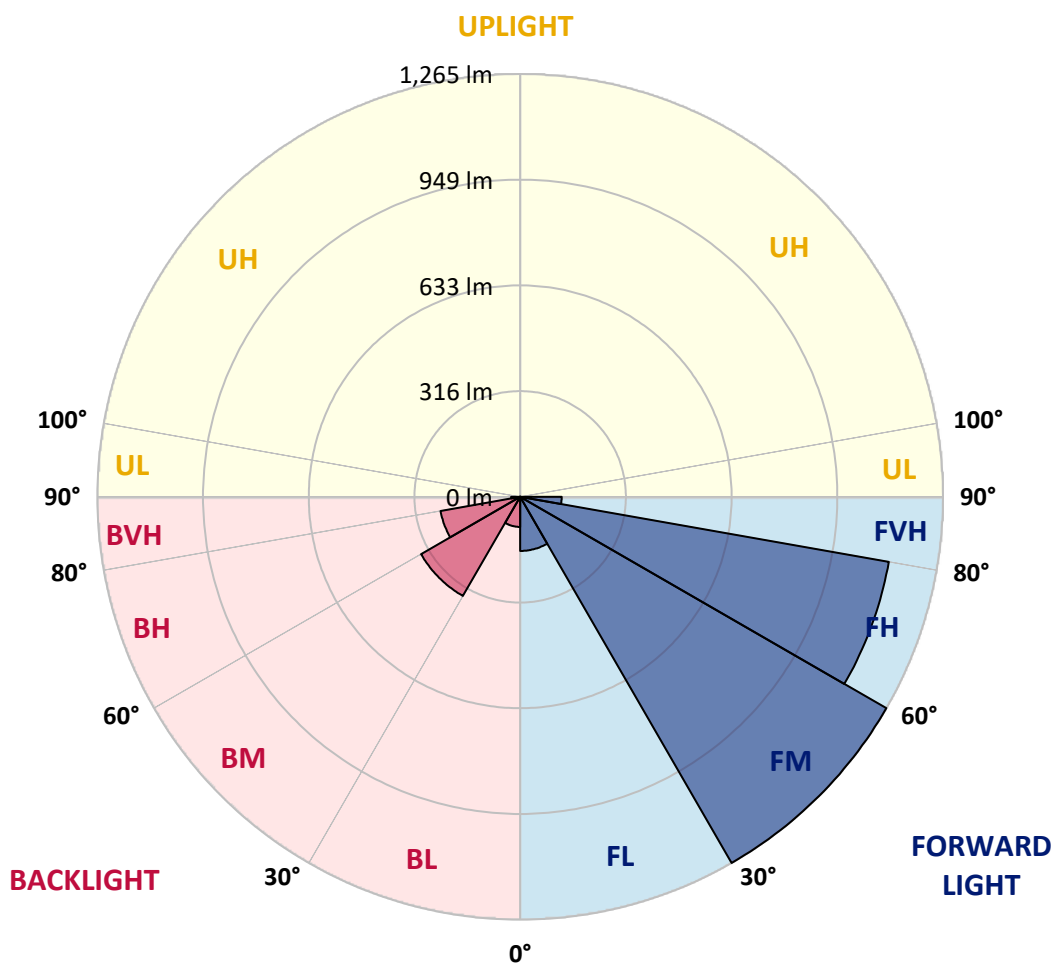
CATALOG NUMBER: TPTN-VA2-830-U-DL-GM

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	161.9	4.8			
FM	(30°-60°)	1265.3	37.5			
FH	(60°-80°)	1120.1	33.2			G1/1800
FVH	(80°-90°)	124.2	3.7			G2/225
BL	(0°-30°)	90.1	2.7	B0/110		
BM	(30°-60°)	342.5	10.2	B1/1000		
BH	(60°-80°)	241.9	7.2	B1/500		G1/500
BVH	(80°-90°)	26.8	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short



REPORT NUMBER: P1445239

CATALOG NUMBER: TPTN-VA2-830-U-DL-GM

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8
2.5°	256.7	256.0	256.0	255.4	254.7	254.7	254.1	252.8	250.8	248.9	247.6
5°	254.1	253.4	252.1	251.5	249.5	248.2	245.6	244.3	244.9	244.9	244.9
7.5°	243.0	243.6	242.3	240.4	237.8	234.5	233.9	233.2	231.3	232.6	232.6
10°	241.0	241.7	235.8	229.3	219.5	216.9	217.6	221.5	224.1	226.7	226.7
12.5°	257.3	254.7	249.5	240.4	228.7	221.5	221.5	224.8	227.4	230.0	230.0
15°	282.1	281.4	275.6	268.4	257.3	244.3	238.4	239.1	241.0	243.0	243.0
17.5°	318.6	320.5	322.5	313.3	297.7	278.8	265.8	260.6	261.2	261.2	261.2
20°	383.7	384.4	388.9	381.1	357.6	327.7	303.6	291.9	289.2	287.9	287.9
22.5°	476.9	474.3	474.3	472.3	442.3	394.8	351.8	330.9	323.8	323.1	323.1
25°	585.0	583.7	586.3	576.5	544.0	478.2	415.0	377.8	367.4	359.6	359.6
27.5°	690.5	691.8	693.1	675.6	641.0	564.8	489.9	430.0	411.1	396.7	396.7
30°	790.2	793.5	776.5	751.8	719.9	637.1	549.2	478.8	446.2	432.6	432.6
32.5°	888.6	885.3	854.7	835.8	806.5	710.1	612.4	528.3	482.7	464.5	464.5
35°	984.3	975.2	936.8	918.5	893.8	798.0	677.5	576.5	519.2	497.1	497.1
37.5°	1073.6	1068.4	1024.1	1015.0	990.2	893.1	745.9	628.7	562.2	534.8	534.8
40°	1157.0	1157.6	1125.7	1110.7	1086.6	990.2	817.6	682.7	606.5	576.5	576.5
42.5°	1243.6	1243.0	1224.7	1215.0	1192.8	1091.8	897.1	739.4	653.4	618.2	618.2
45°	1325.1	1330.9	1332.2	1326.4	1313.3	1216.3	988.9	806.5	701.0	663.8	663.8
47.5°	1420.8	1428.0	1438.4	1440.4	1431.9	1337.4	1075.5	871.6	747.9	706.8	706.8
50°	1491.8	1499.0	1532.2	1542.6	1543.3	1452.1	1169.4	930.3	792.2	740.1	740.1
52.5°	1562.2	1566.1	1613.0	1649.5	1648.2	1564.8	1258.6	987.6	827.3	773.9	773.9
55°	1603.9	1609.7	1670.3	1724.4	1736.1	1662.5	1321.1	1022.8	852.1	795.4	795.4
57.5°	1607.8	1618.2	1687.9	1753.1	1777.8	1707.5	1362.8	1033.2	849.5	796.1	796.1
59°	1600.6	1613.0	1682.7	1754.4	1794.8	1782.4	1712.0	1375.2	1031.2	840.4	792.8
60°	1594.8	1607.1	1673.6	1749.8	1790.2	1779.8	1711.4	1381.1	1022.8	835.2	790.2
62.5°	1559.6	1581.1	1646.9	1714.6	1764.1	1770.0	1698.3	1383.7	1005.2	818.2	776.5
65°	1476.8	1497.7	1584.3	1667.1	1699.6	1719.8	1650.1	1349.8	964.8	783.7	731.6
67.5°	1373.3	1390.9	1475.5	1584.3	1607.1	1625.4	1583.0	1282.7	913.3	716.6	676.2
70°	1267.1	1288.6	1357.0	1471.0	1514.0	1527.0	1496.4	1209.7	839.7	649.5	622.1
72.5°	1124.4	1142.0	1223.4	1329.0	1373.9	1390.2	1365.4	1112.7	746.6	581.7	556.3
75°	965.5	975.9	1052.1	1158.9	1201.9	1218.2	1210.4	988.9	646.2	497.1	471.0
77.5°	773.3	796.7	859.9	945.3	1006.5	1009.8	1009.1	838.4	531.6	391.5	382.4
80°	577.2	598.0	658.0	738.7	781.1	792.8	791.5	661.2	412.4	299.7	284.7
82.5°	365.5	378.5	441.0	506.2	550.5	560.9	572.6	477.5	287.3	198.7	181.8
85°	145.3	144.6	198.7	268.4	301.0	318.6	327.0	278.2	155.7	88.6	74.9
87.5°	10.4	11.1	13.7	16.9	17.6	18.9	21.5	27.4	21.5	18.9	9.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P1445239

CATALOG NUMBER: TPTN-VA2-830-U-DL-GM

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8	252.8
2.5°	246.9	246.2	243.6	242.3	240.4	239.7	239.1	237.8	237.1	236.5	237.1
5°	243.0	243.0	240.4	238.4	233.9	230.6	227.4	222.8	219.5	217.6	216.9
7.5°	233.9	234.5	233.9	230.0	226.1	220.8	213.0	205.2	199.3	196.1	194.8
10°	226.1	227.4	226.7	224.1	217.6	209.1	199.3	188.9	179.8	173.9	173.3
12.5°	230.0	230.0	228.0	222.8	214.3	203.3	190.9	177.2	166.8	160.3	159.0
15°	243.0	241.7	235.8	227.4	214.3	200.6	185.7	170.0	157.7	150.5	149.8
17.5°	261.9	259.3	248.9	233.2	216.3	199.3	183.1	165.5	150.5	141.4	140.1
20°	286.6	280.8	264.5	241.0	220.2	200.6	180.5	160.9	145.9	135.5	132.9
22.5°	317.3	307.5	282.1	250.8	225.4	203.3	181.1	159.6	143.3	133.5	132.9
25°	349.2	336.1	302.3	262.5	231.3	205.2	181.8	162.2	145.9	138.8	137.5
27.5°	381.8	366.1	323.8	276.2	237.8	208.5	184.4	166.1	153.7	147.9	147.2
30°	413.7	392.8	342.7	287.9	244.3	210.4	186.3	166.1	157.7	153.1	152.4
32.5°	443.0	417.6	360.3	300.3	250.8	214.3	188.3	168.1	160.3	159.0	158.3
35°	474.3	446.9	378.5	310.7	257.3	217.6	190.2	170.0	164.2	164.2	164.2
37.5°	508.1	476.2	398.0	322.5	263.8	223.4	192.8	174.6	169.4	170.7	170.7
40°	544.0	507.5	418.2	334.8	269.7	226.7	194.8	179.1	174.6	175.9	176.5
42.5°	581.1	538.1	439.1	345.9	277.5	230.6	198.7	185.0	181.8	183.1	183.1
45°	618.9	570.7	458.6	357.6	284.0	234.5	203.3	191.5	188.9	189.6	189.6
47.5°	656.0	600.0	476.2	368.1	289.9	237.8	207.8	198.0	196.1	196.7	196.1
50°	687.3	625.4	491.8	375.9	295.8	241.0	213.0	204.6	203.3	202.0	201.3
52.5°	714.6	648.2	504.2	381.8	298.4	242.3	217.6	211.1	209.8	207.2	206.5
55°	729.6	658.6	507.5	383.1	296.4	241.0	218.9	214.3	213.0	209.8	209.8
57.5°	732.9	658.6	500.3	377.2	289.9	236.5	218.2	213.0	211.7	208.5	208.5
59°	729.6	654.7	493.8	370.7	284.7	232.6	215.6	211.7	209.8	207.2	207.2
60°	726.4	652.1	489.2	364.2	281.4	230.0	213.0	209.8	207.8	205.9	205.9
62.5°	712.0	637.1	476.9	347.2	270.4	220.2	207.2	205.2	203.9	202.0	201.3
65°	672.3	601.3	450.8	328.3	253.4	208.5	197.4	196.7	196.1	192.8	191.5
67.5°	625.4	557.0	413.0	304.2	231.9	194.8	185.7	185.7	183.1	180.5	181.1
70°	577.2	514.6	373.9	274.3	207.2	177.2	170.0	170.7	168.1	167.4	168.1
72.5°	513.3	454.7	330.9	237.8	181.8	157.0	151.1	153.1	152.4	151.8	151.8
75°	432.6	385.7	278.8	200.6	153.7	134.9	131.6	132.2	132.9	132.2	132.2
77.5°	352.4	313.3	220.8	158.3	121.8	108.8	108.1	111.4	112.0	111.4	112.0
80°	261.2	230.6	160.9	116.0	90.6	83.4	84.7	89.2	90.6	90.6	91.9
82.5°	168.1	144.6	104.2	74.9	60.6	58.6	62.5	67.1	69.1	69.1	69.1
85°	66.4	59.9	48.2	37.1	34.5	37.1	41.7	44.3	47.6	47.6	46.9
87.5°	3.9	9.8	15.0	15.0	15.0	16.3	16.3	16.9	17.6	16.9	16.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2411-284-4

Test Date: 11/22/2024

Luminaire Tested: TTN-D0-830-U-WQ

Data in this report applies to families of products including TTN-D0-830-U-WQ

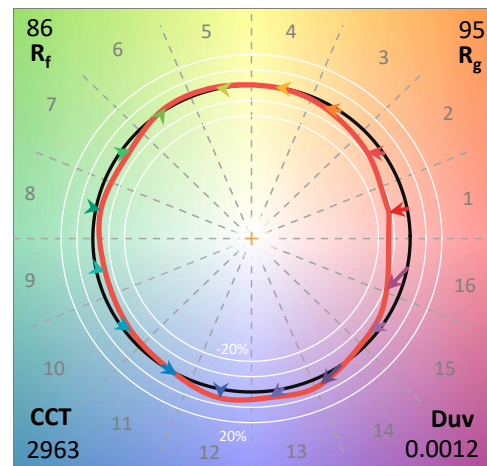
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2411-284-4
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 11/22/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: MCGRAW EDISON
 Catalog Number: **TTN-D0-830-U-WQ**
 Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE. 3000K, 80 CRI LEDS AND WIDE DISTRIBUTION

Spectral Parameters

CCT (K): 2963
 CIE u' : 0.2515
 CIE v' : 0.5238
 Duv: 0.0012
 CIE x: 0.4414
 CIE y: 0.4086
 CIE z: 0.1501
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 582
 Purity: 55.12798
 R_f: 86.1
 R_g: 94.9

CRI (Ra): 82.9
 R1: 81.4
 R2: 91.9
 R3: 95.2
 R4: 81.6
 R5: 82.3
 R6: 91.4
 R7: 82.0
 R8: 57.2
 R9: 3.9
 R10: 82.5
 R11: 82.3
 R12: 76.5
 R13: 83.9
 R14: 97.8
 R15: 72.6



Test Conditions

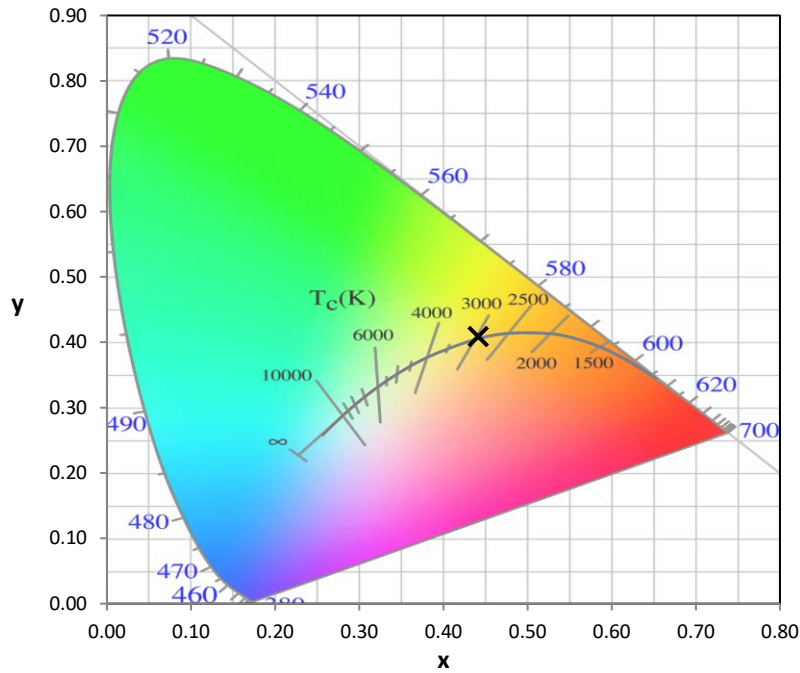
Stabilization Time: 37M
 Operation Time: 1H 37M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2411-284-4

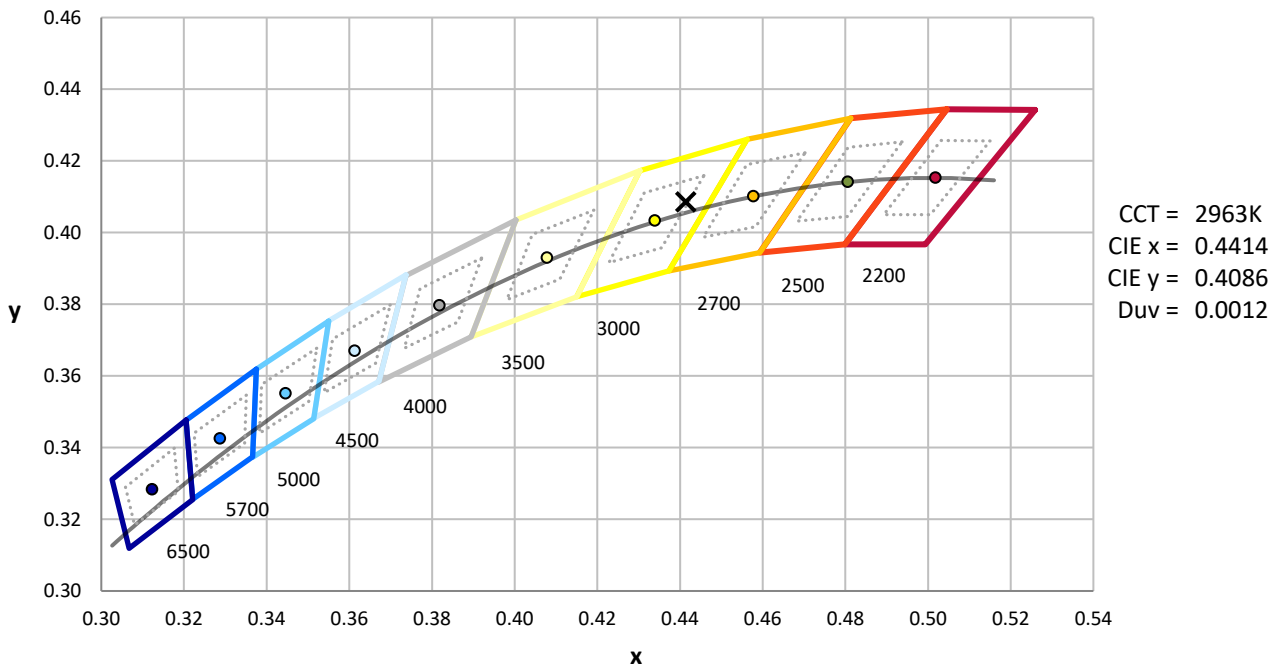
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085	10/22/2024	10/22/2025
Room Thermometer	IN0046	10/22/2024	10/22/2025

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CIE 1931 Chromaticity Diagram



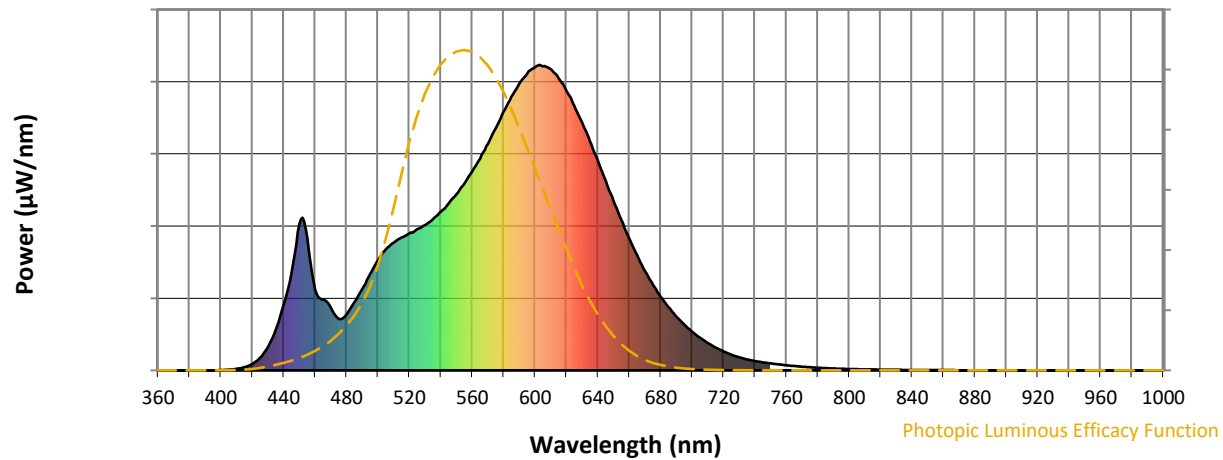
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

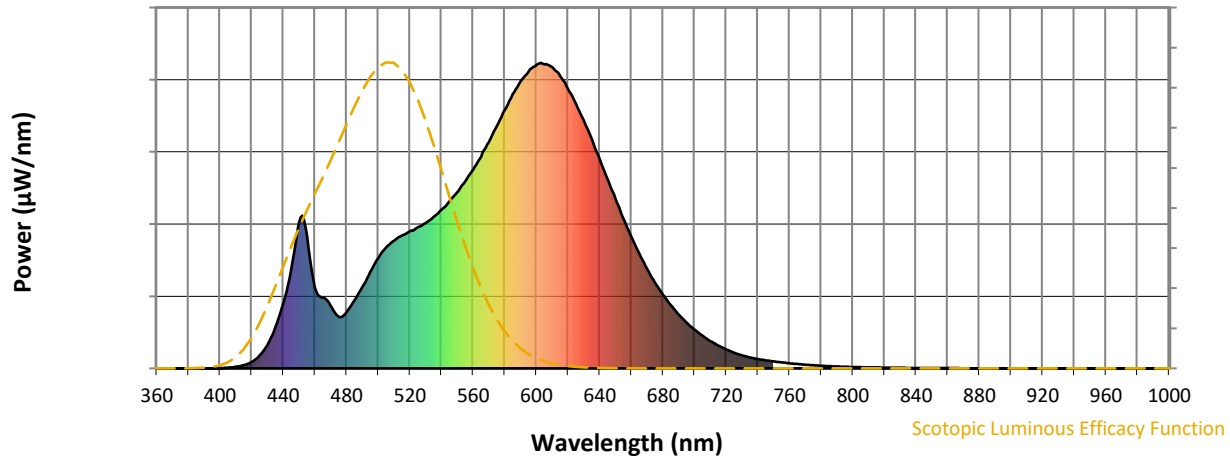


Photopic Lumens: NR

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	267	NR	620	915	NR	750	23	NR	880	0	NR
365	0	NR	495	315	NR	625	866	NR	755	20	NR	885	0	NR
370	0	NR	500	360	NR	630	811	NR	760	17	NR	890	0	NR
375	0	NR	505	396	NR	635	750	NR	765	14	NR	895	0	NR
380	0	NR	510	418	NR	640	686	NR	770	12	NR	900	0	NR
385	0	NR	515	435	NR	645	619	NR	775	10	NR	905	0	NR
390	0	NR	520	448	NR	650	554	NR	780	9	NR	910	0	NR
395	0	NR	525	462	NR	655	491	NR	785	7	NR	915	0	NR
400	1	NR	530	476	NR	660	431	NR	790	6	NR	920	0	NR
405	2	NR	535	495	NR	665	376	NR	795	5	NR	925	0	NR
410	5	NR	540	520	NR	670	325	NR	800	4	NR	930	0	NR
415	10	NR	545	547	NR	675	280	NR	805	4	NR	935	0	NR
420	21	NR	550	576	NR	680	241	NR	810	3	NR	940	0	NR
425	42	NR	555	612	NR	685	207	NR	815	3	NR	945	0	NR
430	77	NR	560	651	NR	690	176	NR	820	2	NR	950	0	NR
435	135	NR	565	693	NR	695	149	NR	825	2	NR	955	0	NR
440	215	NR	570	741	NR	700	127	NR	830	2	NR	960	0	NR
445	321	NR	575	793	NR	705	107	NR	835	2	NR	965	0	NR
450	479	NR	580	847	NR	710	89	NR	840	1	NR	970	0	NR
455	432	NR	585	897	NR	715	75	NR	845	1	NR	975	0	NR
460	265	NR	590	940	NR	720	62	NR	850	1	NR	980	0	NR
465	231	NR	595	971	NR	725	51	NR	855	1	NR	985	0	NR
470	204	NR	600	993	NR	730	43	NR	860	1	NR	990	0	NR
475	168	NR	605	996	NR	735	36	NR	865	1	NR	995	0	NR
480	183	NR	610	986	NR	740	31	NR	870	1	NR	1000	0	NR
485	223	NR	615	957	NR	745	26	NR	875	0	NR			

REPORT NUMBER: SP1-2411-284-4

Scotopic Flux vs. Wavelength

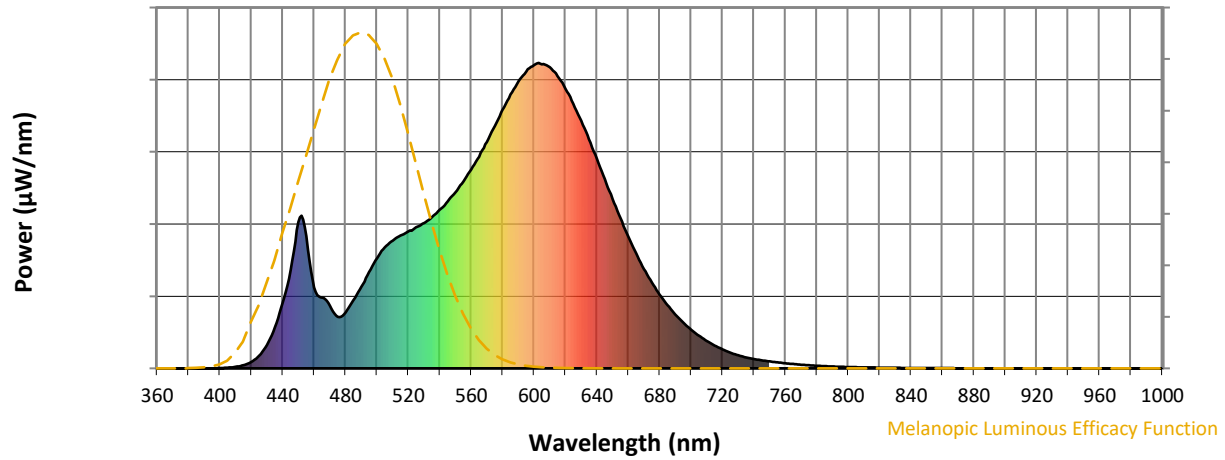


Scotopic Lumens: NR

S/P: 1.34

λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)
360	0	NR	490	267	NR	620	915	NR	750	23	NR	880	0	NR
365	0	NR	495	315	NR	625	866	NR	755	20	NR	885	0	NR
370	0	NR	500	360	NR	630	811	NR	760	17	NR	890	0	NR
375	0	NR	505	396	NR	635	750	NR	765	14	NR	895	0	NR
380	0	NR	510	418	NR	640	686	NR	770	12	NR	900	0	NR
385	0	NR	515	435	NR	645	619	NR	775	10	NR	905	0	NR
390	0	NR	520	448	NR	650	554	NR	780	9	NR	910	0	NR
395	0	NR	525	462	NR	655	491	NR	785	7	NR	915	0	NR
400	1	NR	530	476	NR	660	431	NR	790	6	NR	920	0	NR
405	2	NR	535	495	NR	665	376	NR	795	5	NR	925	0	NR
410	5	NR	540	520	NR	670	325	NR	800	4	NR	930	0	NR
415	10	NR	545	547	NR	675	280	NR	805	4	NR	935	0	NR
420	21	NR	550	576	NR	680	241	NR	810	3	NR	940	0	NR
425	42	NR	555	612	NR	685	207	NR	815	3	NR	945	0	NR
430	77	NR	560	651	NR	690	176	NR	820	2	NR	950	0	NR
435	135	NR	565	693	NR	695	149	NR	825	2	NR	955	0	NR
440	215	NR	570	741	NR	700	127	NR	830	2	NR	960	0	NR
445	321	NR	575	793	NR	705	107	NR	835	2	NR	965	0	NR
450	479	NR	580	847	NR	710	89	NR	840	1	NR	970	0	NR
455	432	NR	585	897	NR	715	75	NR	845	1	NR	975	0	NR
460	265	NR	590	940	NR	720	62	NR	850	1	NR	980	0	NR
465	231	NR	595	971	NR	725	51	NR	855	1	NR	985	0	NR
470	204	NR	600	993	NR	730	43	NR	860	1	NR	990	0	NR
475	168	NR	605	996	NR	735	36	NR	865	1	NR	995	0	NR
480	183	NR	610	986	NR	740	31	NR	870	1	NR	1000	0	NR
485	223	NR	615	957	NR	745	26	NR	875	0	NR			

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Melanopic Flux vs. Wavelength

Melanopic Lumens: NR
M/P: 2.58

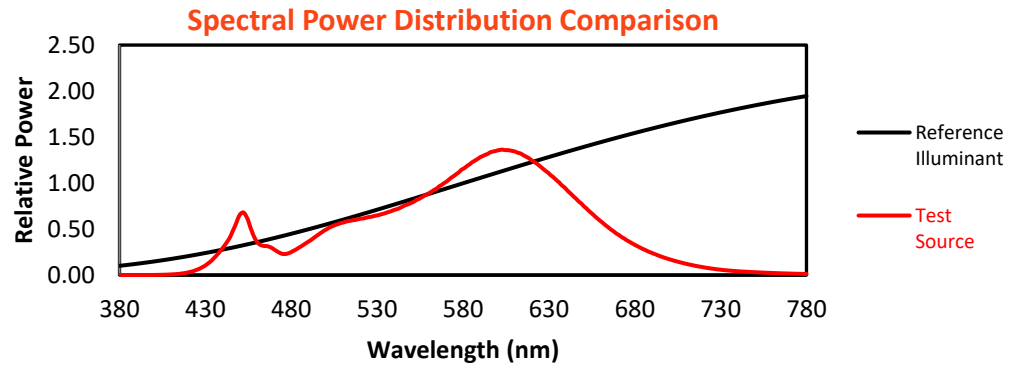
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	267	NR	620	915	NR	750	23	NR	880	0	NR
365	0	NR	495	315	NR	625	866	NR	755	20	NR	885	0	NR
370	0	NR	500	360	NR	630	811	NR	760	17	NR	890	0	NR
375	0	NR	505	396	NR	635	750	NR	765	14	NR	895	0	NR
380	0	NR	510	418	NR	640	686	NR	770	12	NR	900	0	NR
385	0	NR	515	435	NR	645	619	NR	775	10	NR	905	0	NR
390	0	NR	520	448	NR	650	554	NR	780	9	NR	910	0	NR
395	0	NR	525	462	NR	655	491	NR	785	7	NR	915	0	NR
400	1	NR	530	476	NR	660	431	NR	790	6	NR	920	0	NR
405	2	NR	535	495	NR	665	376	NR	795	5	NR	925	0	NR
410	5	NR	540	520	NR	670	325	NR	800	4	NR	930	0	NR
415	10	NR	545	547	NR	675	280	NR	805	4	NR	935	0	NR
420	21	NR	550	576	NR	680	241	NR	810	3	NR	940	0	NR
425	42	NR	555	612	NR	685	207	NR	815	3	NR	945	0	NR
430	77	NR	560	651	NR	690	176	NR	820	2	NR	950	0	NR
435	135	NR	565	693	NR	695	149	NR	825	2	NR	955	0	NR
440	215	NR	570	741	NR	700	127	NR	830	2	NR	960	0	NR
445	321	NR	575	793	NR	705	107	NR	835	2	NR	965	0	NR
450	479	NR	580	847	NR	710	89	NR	840	1	NR	970	0	NR
455	432	NR	585	897	NR	715	75	NR	845	1	NR	975	0	NR
460	265	NR	590	940	NR	720	62	NR	850	1	NR	980	0	NR
465	231	NR	595	971	NR	725	51	NR	855	1	NR	985	0	NR
470	204	NR	600	993	NR	730	43	NR	860	1	NR	990	0	NR
475	168	NR	605	996	NR	735	36	NR	865	1	NR	995	0	NR
480	183	NR	610	986	NR	740	31	NR	870	1	NR	1000	0	NR
485	223	NR	615	957	NR	745	26	NR	875	0	NR			

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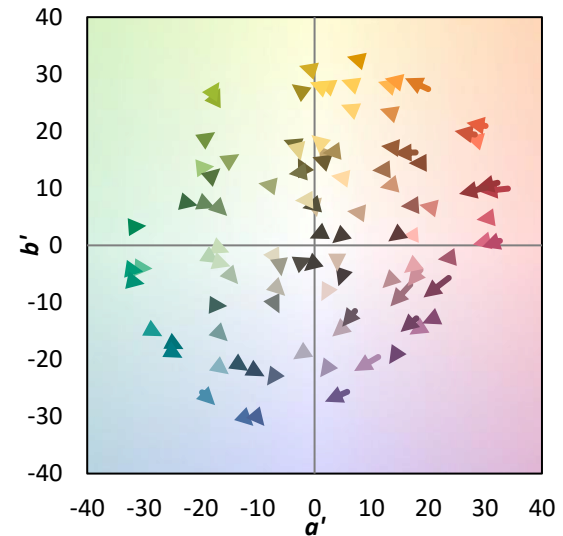
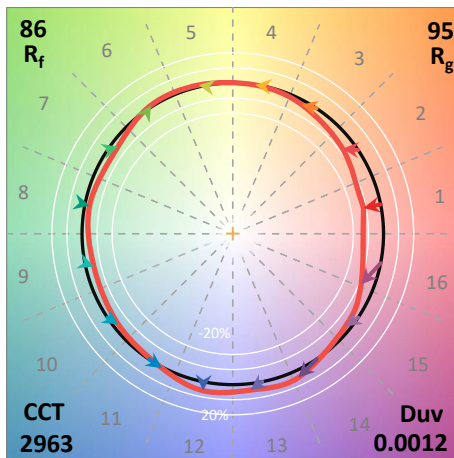
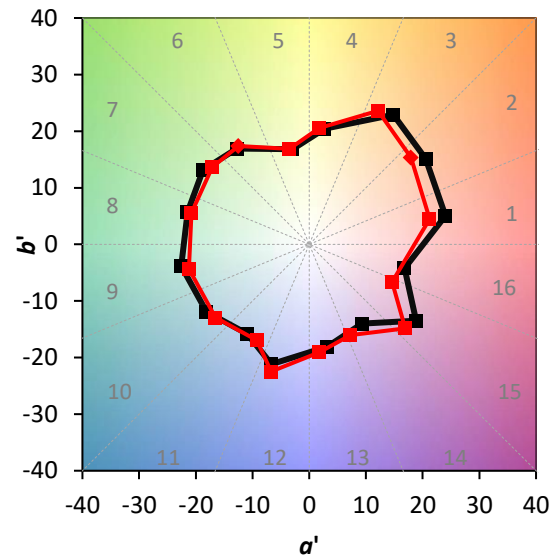
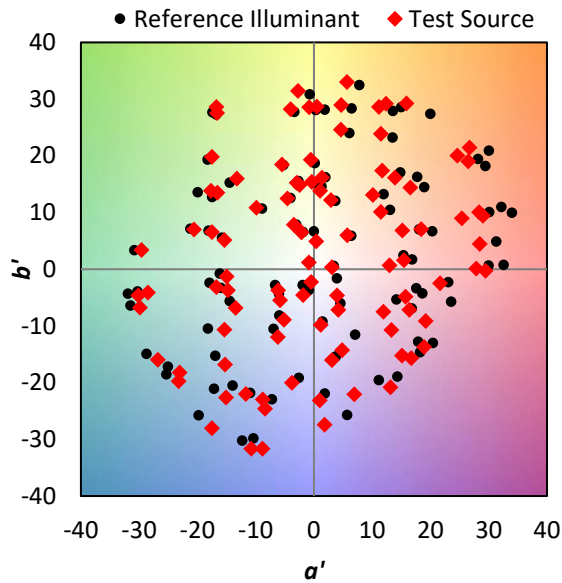
TM-30-18

Summary

$R_f = 86.1$
 $R_g = 94.9$
 $CIE R_a = 82.9$
 $R_9 = 3.9$

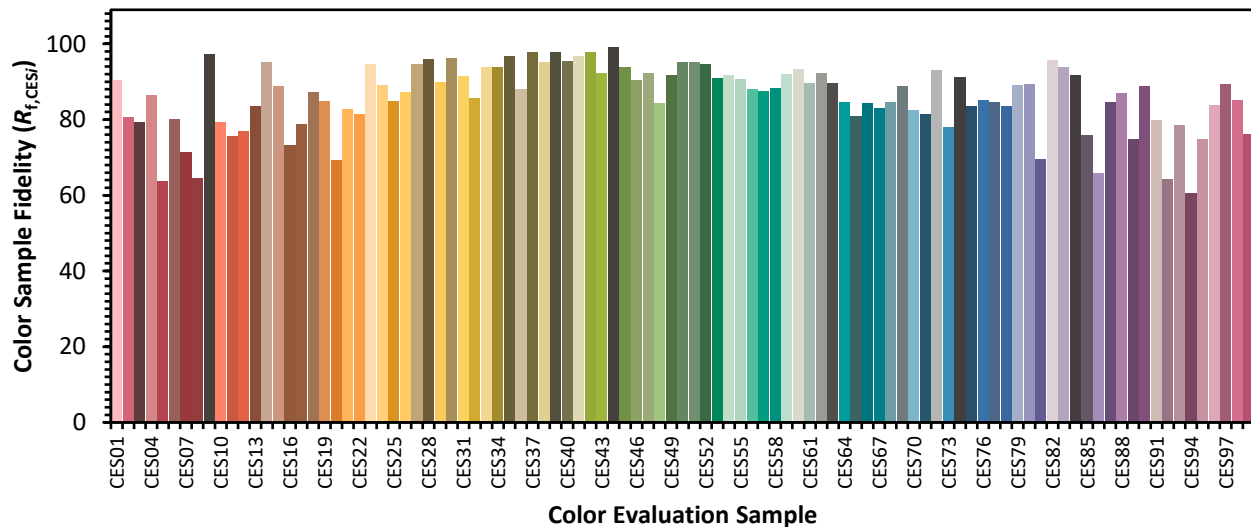


Color Vector Graphics

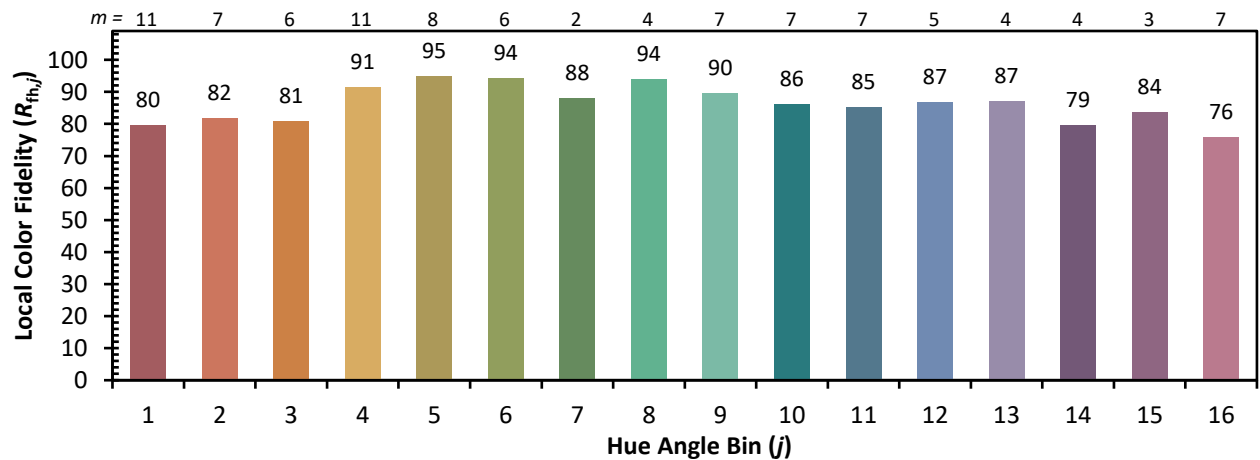
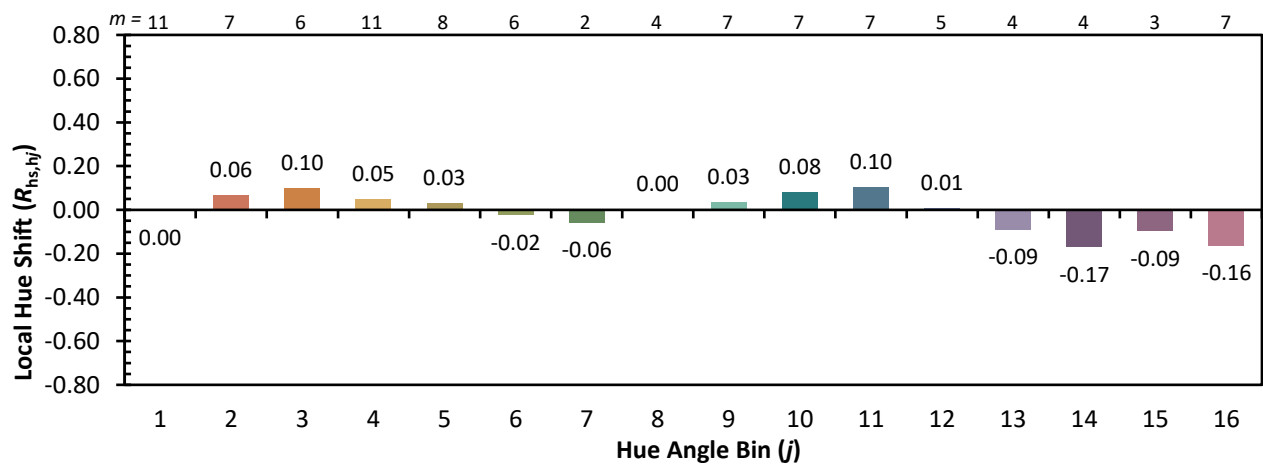
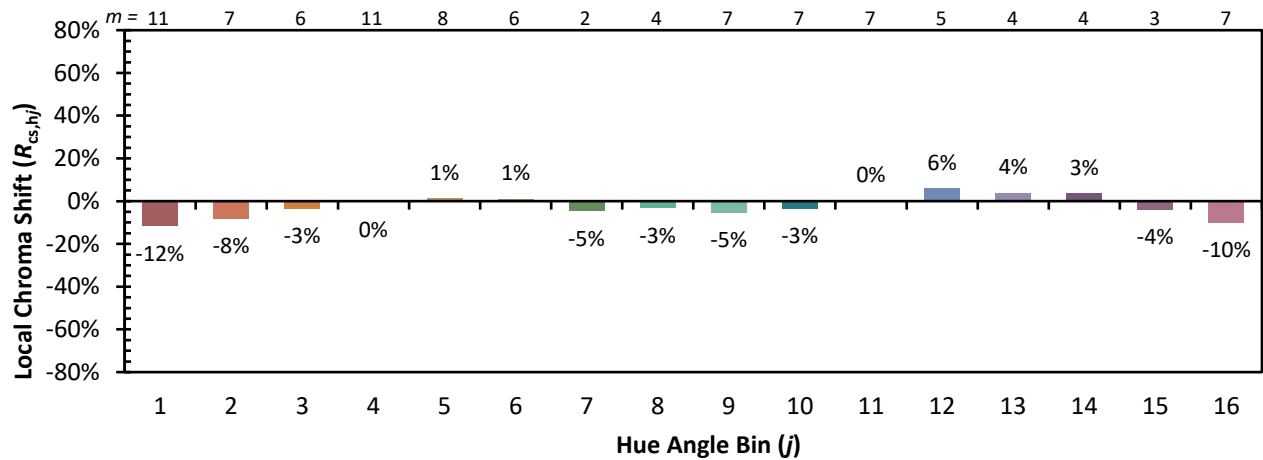


Individual Sample Fidelity Index ($R_{f,i}$)

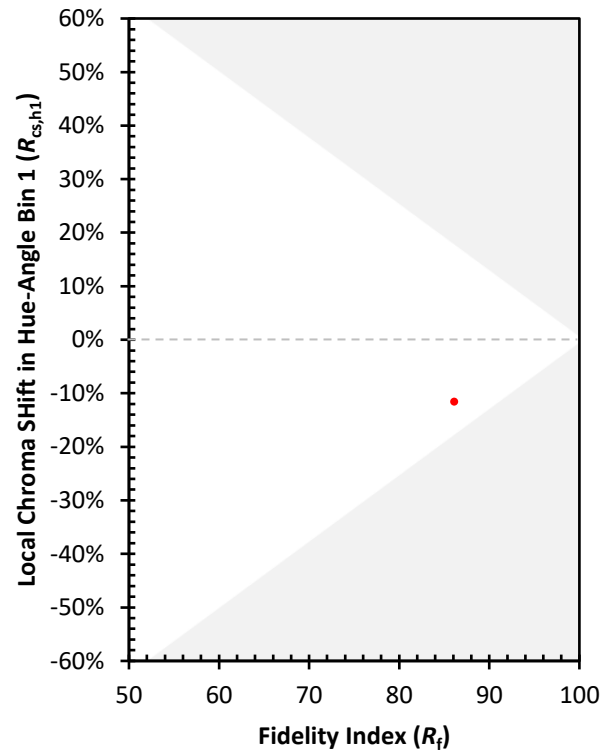
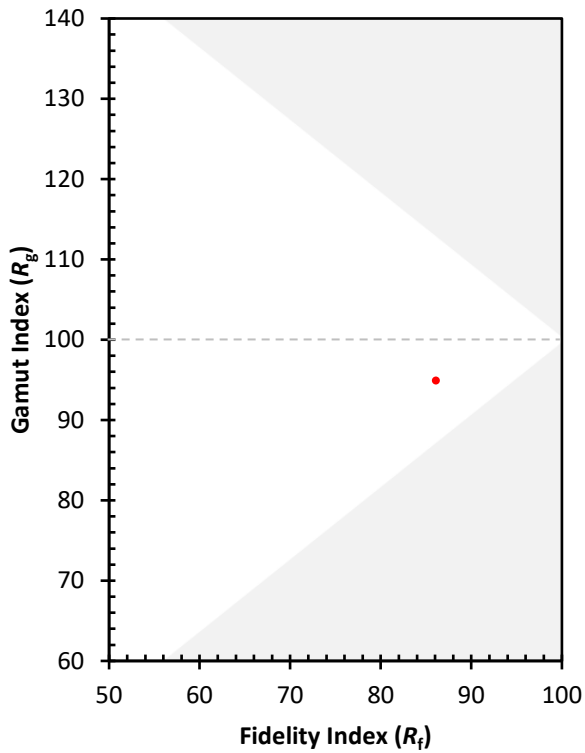
CES01 = 86	CES26 = 87	CES51 = 95	CES76 = 85
CES02 = 63	CES27 = 95	CES52 = 95	CES77 = 85
CES03 = 31	CES28 = 96	CES53 = 91	CES78 = 83
CES04 = 70	CES29 = 90	CES54 = 92	CES79 = 89
CES05 = 50	CES30 = 96	CES55 = 91	CES80 = 89
CES06 = 51	CES31 = 92	CES56 = 88	CES81 = 70
CES07 = 42	CES32 = 86	CES57 = 87	CES82 = 96
CES08 = 41	CES33 = 94	CES58 = 88	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 92	CES84 = 92
CES10 = 76	CES35 = 97	CES60 = 93	CES85 = 76
CES11 = 59	CES36 = 88	CES61 = 90	CES86 = 66
CES12 = 65	CES37 = 98	CES62 = 92	CES87 = 85
CES13 = 44	CES38 = 95	CES63 = 90	CES88 = 87
CES14 = 74	CES39 = 98	CES64 = 85	CES89 = 75
CES15 = 72	CES40 = 96	CES65 = 81	CES90 = 89
CES16 = 48	CES41 = 97	CES66 = 84	CES91 = 80
CES17 = 50	CES42 = 98	CES67 = 83	CES92 = 64
CES18 = 57	CES43 = 92	CES68 = 85	CES93 = 79
CES19 = 72	CES44 = 99	CES69 = 89	CES94 = 61
CES20 = 67	CES45 = 94	CES70 = 83	CES95 = 75
CES21 = 87	CES46 = 91	CES71 = 81	CES96 = 84
CES22 = 79	CES47 = 92	CES72 = 93	CES97 = 89
CES23 = 92	CES48 = 84	CES73 = 78	CES98 = 85
CES24 = 91	CES49 = 92	CES74 = 91	CES99 = 76
CES25 = 72	CES50 = 95	CES75 = 84	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)