

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: P1445248

Luminaire Tested: TPTN-VA3-740-U-DL-CG-GM

Issue Date: 05/21/2026

Test Information

Test Method: LM-79-2024
Report Number: P1445248
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/21/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: MCGRAW-EDISON
Catalog Number: TPTN-VA3-740-U-DL-CG-GM
Description: TOPTIER NANO SPIDER MOUNT VISUAL COMFORT LED LUMINAIRE 60W 70CRI 4000K w/
DRIVE LANE TYPE IV DISTRIBUTION OPTIC AND GLASS
Light Source: 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5030.3 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Luminous Opening: Circular (Dia: 0.71' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

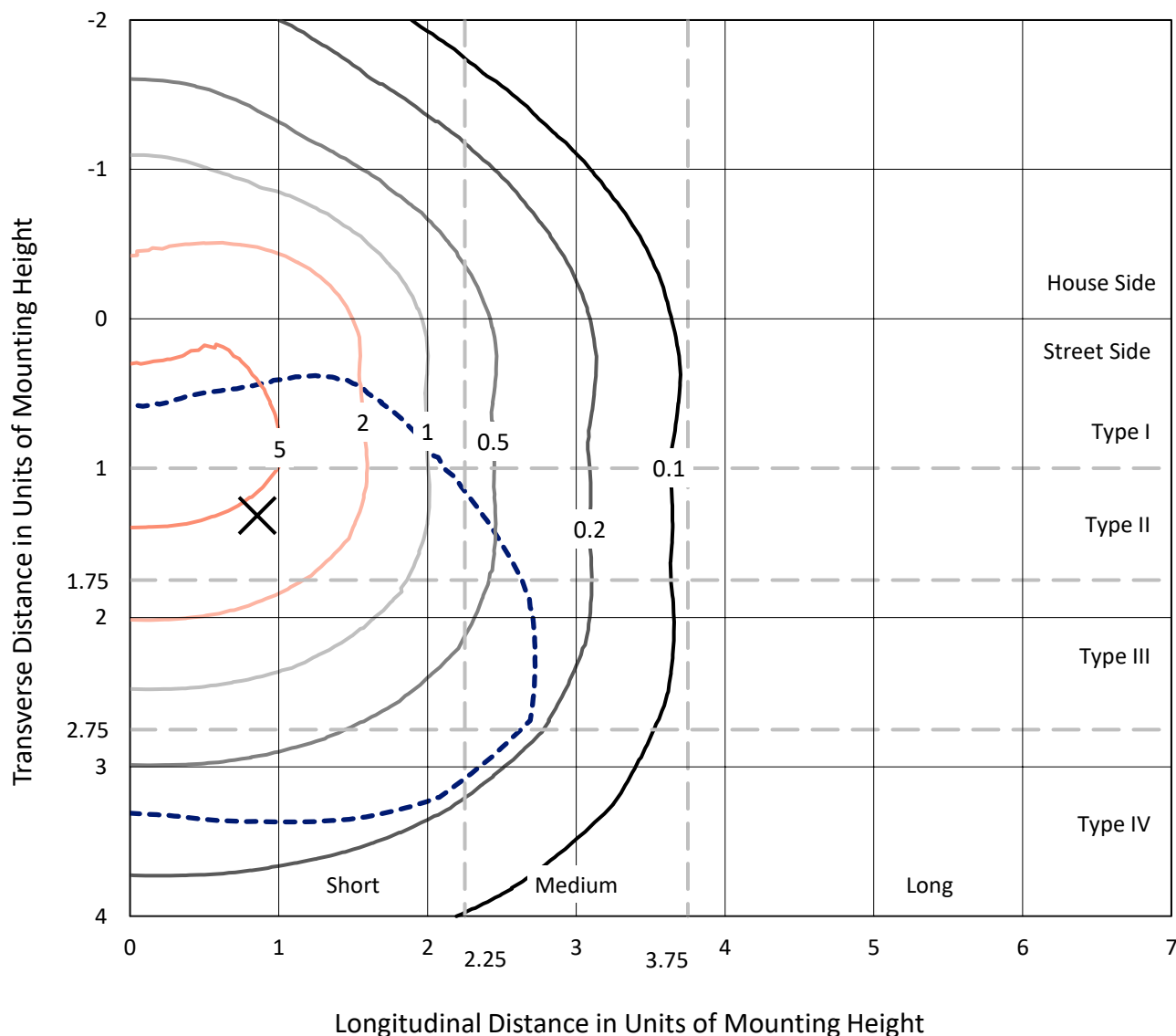
Input Watts (W): 60
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.98
Total Harmonic Distortion (THDi): 5.3%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

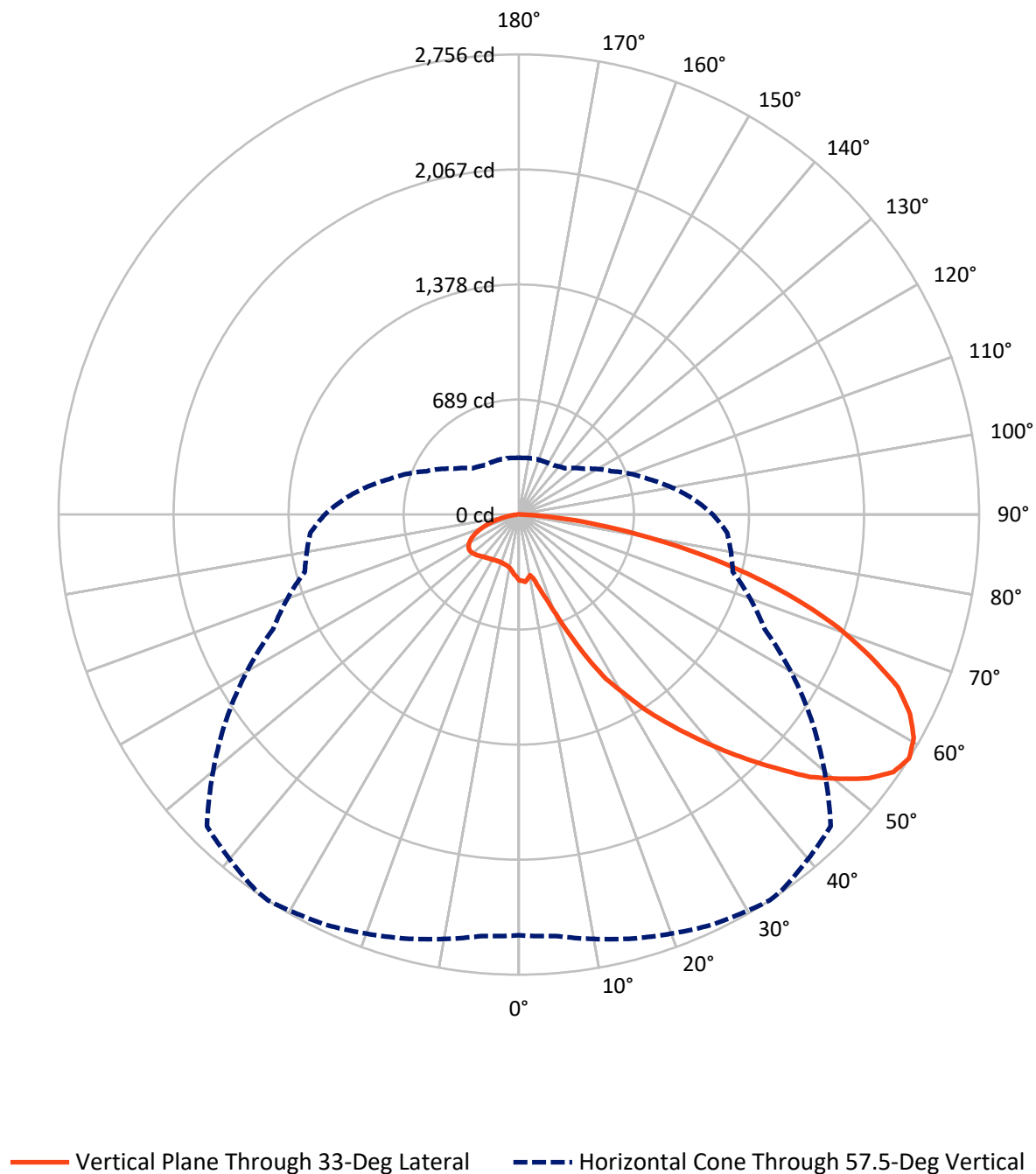


Based on 10 foot mounting height. Maximum calculated value = 9.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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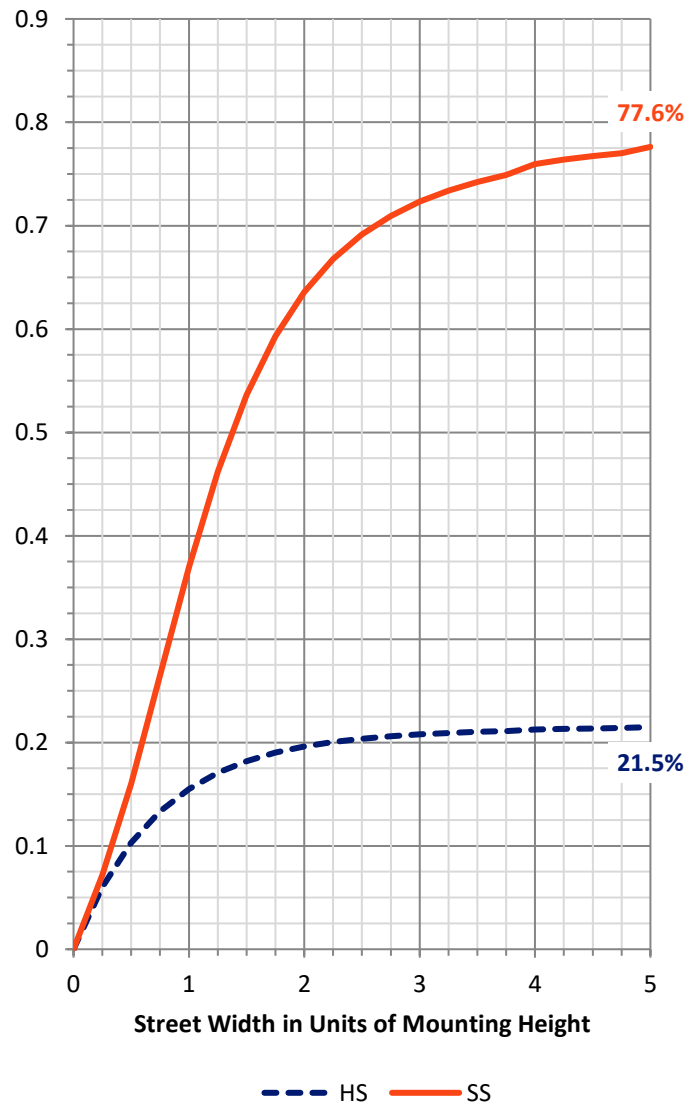
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1089.3	0.0	1089.3
	% Fixture	21.7	0.0	21.7
Street Side	Lumens	3941.0	0.0	3941.0
	% Fixture	78.3	0.0	78.3
Total	Lumens	5030.3	0.0	5030.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.6	0.7
10°-20°	113.6	2.3
20°-30°	280.3	5.6
30°-40°	544.1	10.8
40°-50°	884.3	17.6
50°-60°	1195.7	23.8
60°-70°	1164.2	23.1
70°-80°	686.1	13.6
80°-90°	126.3	2.5
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°	5030.3	100.0
0°-180°	5030.3	100.0

Coefficient of Utilization



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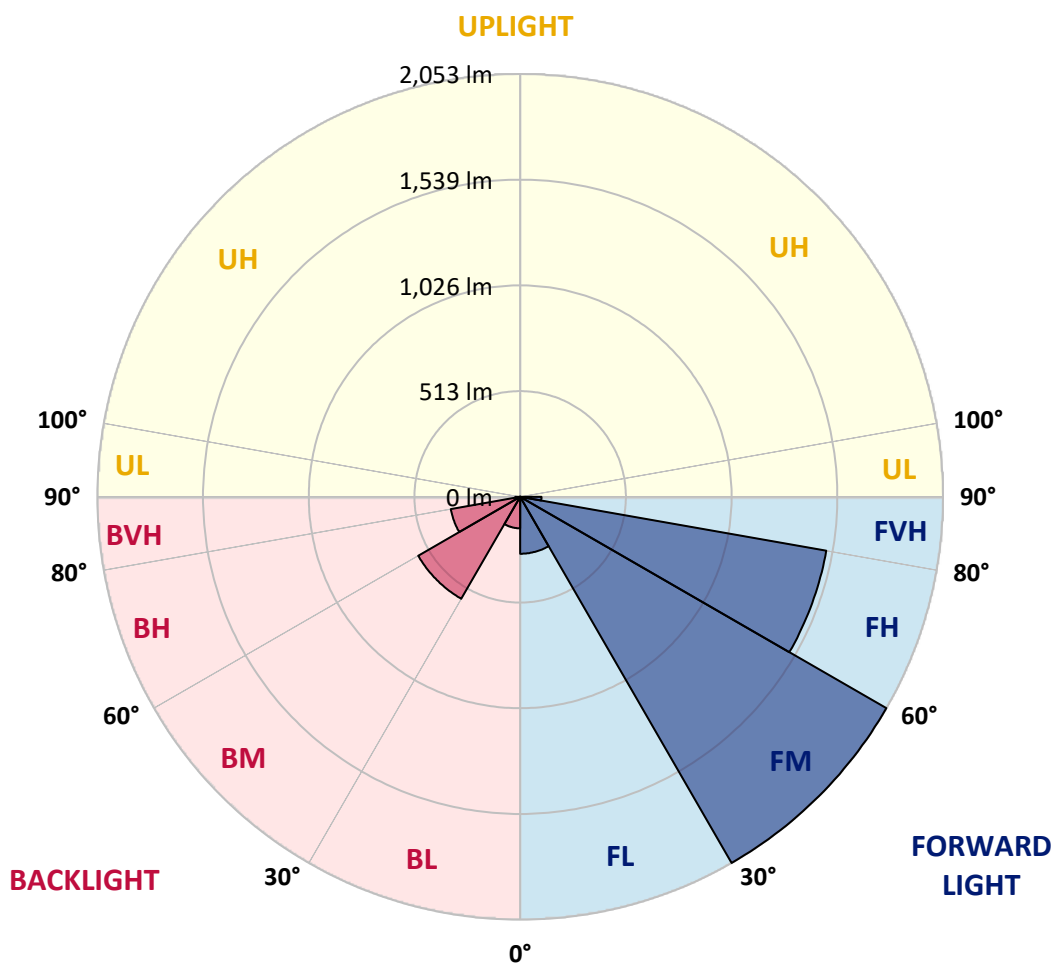
CATALOG NUMBER: TPTN-VA3-740-U-DL-CG-GM

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	276.5	5.5			
FM	(30°-60°)	2052.6	40.8			
FH	(60°-80°)	1508.6	30.0			G1/1800
FVH	(80°-90°)	103.3	2.1			G2/225
BL	(0°-30°)	153.0	3.0	B1/500		
BM	(30°-60°)	571.5	11.4	B1/1000		
BH	(60°-80°)	341.7	6.8	B1/500		G1/500
BVH	(80°-90°)	23.0	0.5			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



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CATALOG NUMBER: TPTN-VA3-740-U-DL-CG-GM

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	395.1	395.1	395.1	395.1	395.1	395.1	395.1	395.1	395.1	395.1	395.1
2.5°	400.1	399.1	399.1	398.1	397.1	397.1	396.1	395.1	393.1	391.1	389.1
5°	419.1	417.1	413.1	409.1	405.1	405.1	403.1	402.1	400.1	399.1	397.1
7.5°	400.1	400.1	398.1	393.1	387.1	386.1	377.1	374.1	377.1	376.1	377.1
10°	409.1	408.1	397.1	384.1	369.1	366.1	358.1	355.1	361.1	367.1	372.1
12.5°	440.1	440.1	428.1	411.1	395.1	391.1	374.1	368.1	369.1	376.1	382.1
15°	491.1	491.1	482.1	468.1	453.1	445.1	419.1	402.1	397.1	400.1	406.1
17.5°	569.1	565.1	570.1	550.1	530.1	523.1	482.1	451.1	438.1	439.1	441.1
20°	689.1	687.1	687.1	674.1	639.1	625.1	570.1	515.1	492.1	489.1	487.1
22.5°	842.2	837.2	839.2	823.2	780.2	768.2	683.1	606.1	559.1	545.1	544.1
25°	1018.2	1019.2	1021.2	999.2	948.2	937.2	824.2	712.2	638.1	611.1	604.1
27.5°	1196.3	1196.3	1184.2	1152.2	1115.2	1096.2	973.2	829.2	726.2	686.1	667.1
30°	1356.3	1355.3	1329.3	1282.3	1244.3	1231.3	1095.2	939.2	810.2	750.2	726.2
32.5°	1511.3	1508.3	1462.3	1421.3	1394.3	1374.3	1227.3	1045.2	891.2	811.2	781.2
35°	1669.4	1651.3	1598.3	1564.3	1535.3	1512.3	1366.3	1153.2	971.2	876.2	838.2
37.5°	1808.4	1803.4	1741.4	1715.4	1682.4	1670.4	1515.3	1264.3	1056.2	941.2	900.2
40°	1944.4	1942.4	1893.4	1867.4	1838.4	1821.4	1673.4	1385.3	1149.2	1012.2	966.2
42.5°	2066.4	2070.4	2044.4	2027.4	2002.4	1989.4	1834.4	1512.3	1239.3	1079.2	1030.2
45°	2203.5	2204.5	2199.5	2192.5	2169.5	2170.5	2007.4	1647.3	1340.3	1152.2	1097.2
47.5°	2329.5	2337.5	2349.5	2350.5	2348.5	2338.5	2191.5	1776.4	1435.3	1218.3	1160.2
50°	2419.5	2432.5	2476.5	2490.5	2486.5	2483.5	2338.5	1907.4	1511.3	1276.3	1204.3
52.5°	2505.5	2515.5	2579.5	2624.6	2623.6	2616.6	2477.5	2021.4	1585.3	1317.3	1245.3
55°	2547.5	2553.5	2636.6	2708.6	2721.6	2722.6	2603.5	2104.4	1627.3	1343.3	1266.3
57.5°	2519.5	2533.5	2628.6	2713.6	2755.6	2746.6	2640.6	2137.5	1623.3	1326.3	1252.3
60°	2454.5	2474.5	2565.5	2662.6	2716.6	2703.6	2604.5	2124.4	1587.3	1283.3	1221.3
62.5°	2355.5	2380.5	2469.5	2563.5	2627.6	2631.6	2538.5	2085.4	1520.3	1230.3	1172.2
65°	2165.5	2198.5	2330.5	2433.5	2494.5	2509.5	2408.5	1992.4	1433.3	1150.2	1081.2
67.5°	1957.4	1979.4	2085.4	2236.5	2268.5	2289.5	2230.5	1838.4	1320.3	1024.2	970.2
70°	1720.4	1754.4	1838.4	1986.4	2028.4	2043.4	2008.4	1648.3	1158.2	885.2	855.2
72.5°	1455.3	1469.3	1564.3	1675.4	1739.4	1758.4	1721.4	1429.3	980.2	738.2	715.2
75°	1141.2	1163.2	1236.3	1346.3	1416.3	1411.3	1405.3	1170.2	776.2	588.1	565.1
77.5°	847.2	859.2	930.2	1010.2	1067.2	1072.2	1070.2	892.2	582.1	428.1	412.1
80°	553.1	568.1	620.1	683.1	721.2	738.2	732.2	622.1	399.1	288.1	276.1
82.5°	313.1	317.1	356.1	390.1	437.1	434.1	446.1	379.1	243.1	169.0	154.0
85°	111.0	118.0	138.0	174.0	193.0	206.0	208.0	178.0	109.0	76.0	57.0
87.5°	11.0	11.0	19.0	28.0	36.0	38.0	39.0	40.0	32.0	25.0	8.0
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: P1445248

CATALOG NUMBER: TPTN-VA3-740-U-DL-CG-GM

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	395.1	395.1	395.1	395.1	395.1	395.1	395.1	395.1	395.1	395.1	395.1
2.5°	389.1	387.1	383.1	379.1	378.1	374.1	373.1	372.1	370.1	370.1	369.1
5°	393.1	391.1	385.1	378.1	371.1	365.1	360.1	355.1	351.1	348.1	348.1
7.5°	379.1	380.1	380.1	375.1	365.1	354.1	341.1	331.1	322.1	318.1	316.1
10°	373.1	376.1	375.1	370.1	360.1	345.1	328.1	312.1	299.1	291.1	290.1
12.5°	384.1	384.1	381.1	373.1	359.1	340.1	320.1	299.1	284.1	275.1	274.1
15°	408.1	407.1	396.1	381.1	361.1	339.1	316.1	293.1	274.1	264.1	263.1
17.5°	442.1	437.1	419.1	393.1	366.1	339.1	313.1	288.1	268.1	256.1	254.1
20°	484.1	474.1	446.1	408.1	372.1	341.1	311.1	284.1	264.1	251.1	250.1
22.5°	536.1	520.1	476.1	425.1	382.1	345.1	311.1	282.1	263.1	253.1	253.1
25°	588.1	566.1	510.1	444.1	392.1	348.1	311.1	284.1	268.1	261.1	260.1
27.5°	645.1	614.1	543.1	466.1	402.1	352.1	313.1	285.1	273.1	268.1	268.1
30°	697.1	662.1	577.1	487.1	413.1	357.1	317.1	288.1	276.1	274.1	272.1
32.5°	746.2	705.1	609.1	507.1	426.1	362.1	320.1	291.1	280.1	278.1	277.1
35°	800.2	755.2	638.1	526.1	436.1	370.1	324.1	296.1	285.1	283.1	283.1
37.5°	858.2	802.2	672.1	546.1	446.1	378.1	328.1	303.1	292.1	290.1	289.1
40°	914.2	852.2	706.1	566.1	458.1	384.1	333.1	309.1	300.1	298.1	297.1
42.5°	974.2	903.2	739.2	584.1	470.1	390.1	340.1	318.1	310.1	306.1	305.1
45°	1029.2	952.2	769.2	603.1	481.1	397.1	348.1	329.1	321.1	317.1	316.1
47.5°	1082.2	994.2	797.2	617.1	490.1	402.1	356.1	338.1	332.1	328.1	326.1
50°	1125.2	1028.2	817.2	626.1	496.1	405.1	362.1	346.1	341.1	335.1	334.1
52.5°	1156.2	1055.2	831.2	633.1	497.1	405.1	366.1	355.1	349.1	343.1	341.1
55°	1171.2	1065.2	830.2	630.1	491.1	402.1	366.1	357.1	352.1	345.1	344.1
57.5°	1161.2	1051.2	811.2	613.1	477.1	391.1	360.1	351.1	346.1	340.1	340.1
60°	1130.2	1022.2	781.2	587.1	455.1	373.1	347.1	340.1	335.1	330.1	330.1
62.5°	1081.2	980.2	743.2	548.1	428.1	352.1	330.1	324.1	321.1	316.1	315.1
65°	996.2	898.2	689.1	507.1	392.1	325.1	306.1	304.1	300.1	293.1	292.1
67.5°	898.2	808.2	610.1	456.1	350.1	291.1	277.1	275.1	271.1	265.1	266.1
70°	788.2	708.1	528.1	393.1	299.1	254.1	242.1	239.1	236.0	235.0	234.0
72.5°	664.1	596.1	442.1	321.1	250.1	214.0	204.0	202.0	200.0	199.0	198.0
75°	516.1	470.1	353.1	253.1	198.0	172.0	163.0	162.0	162.0	160.0	158.0
77.5°	380.1	342.1	257.1	184.0	143.0	125.0	122.0	122.0	123.0	122.0	119.0
80°	252.1	228.0	168.0	122.0	95.0	83.0	83.0	84.0	85.0	84.0	85.0
82.5°	134.0	126.0	95.0	71.0	56.0	49.0	50.0	51.0	53.0	51.0	53.0
85°	49.0	50.0	42.0	32.0	27.0	25.0	26.0	27.0	28.0	27.0	27.0
87.5°	3.0	10.0	17.0	15.0	13.0	13.0	13.0	13.0	13.0	12.0	11.0
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: SP1-2411-284-2

Test Date: 11/20/2024

Luminaire Tested: TTN-D0-740-U-WQ

Data in this report applies to families of products including TTN-D0-740-U-WQ

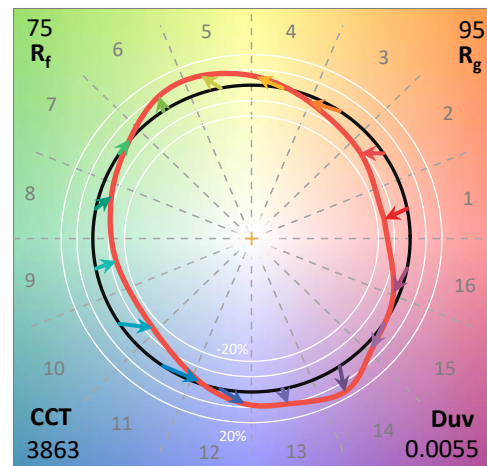
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2411-284-2
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 11/20/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: MCGRAW EDISON
 Catalog Number: **TTN-D0-740-U-WQ**
 Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE. 4000K, 70 CRI LEDS AND WIDE DISTRIBUTION

Spectral Parameters

CCT (K): 3863
 CIE u' : 0.2247
 CIE v' : 0.5111
 Duv: 0.0055
 CIE x: 0.3911
 CIE y: 0.3954
 CIE z: 0.2136
 Peak Wavelength (nm): 448
 Dominant Wavelength (nm): 577
 Purity: 36.03443
 R_f: 74.7
 R_g: 95.4

CRI (Ra): 71.9
 R1: 69.4
 R2: 76.9
 R3: 83.3
 R4: 72.7
 R5: 68.4
 R6: 67.5
 R7: 82.0
 R8: 55.3
 R9: -23.5
 R10: 45.4
 R11: 68.7
 R12: 38.7
 R13: 70.0
 R14: 90.3
 R15: 62.1



Test Conditions

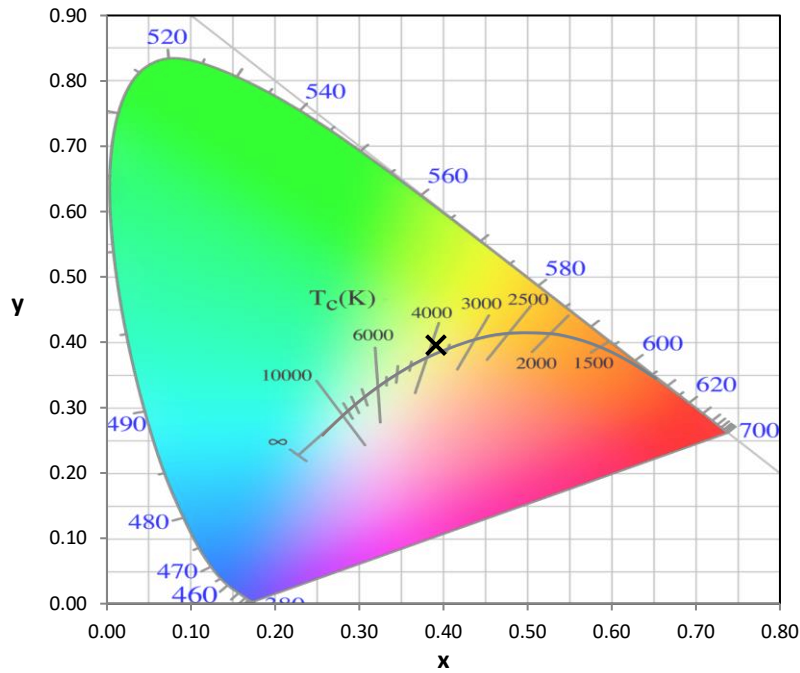
Stabilization Time: 37M
 Operation Time: 1H 37M
 Sphere Temperature (°C): 25.0

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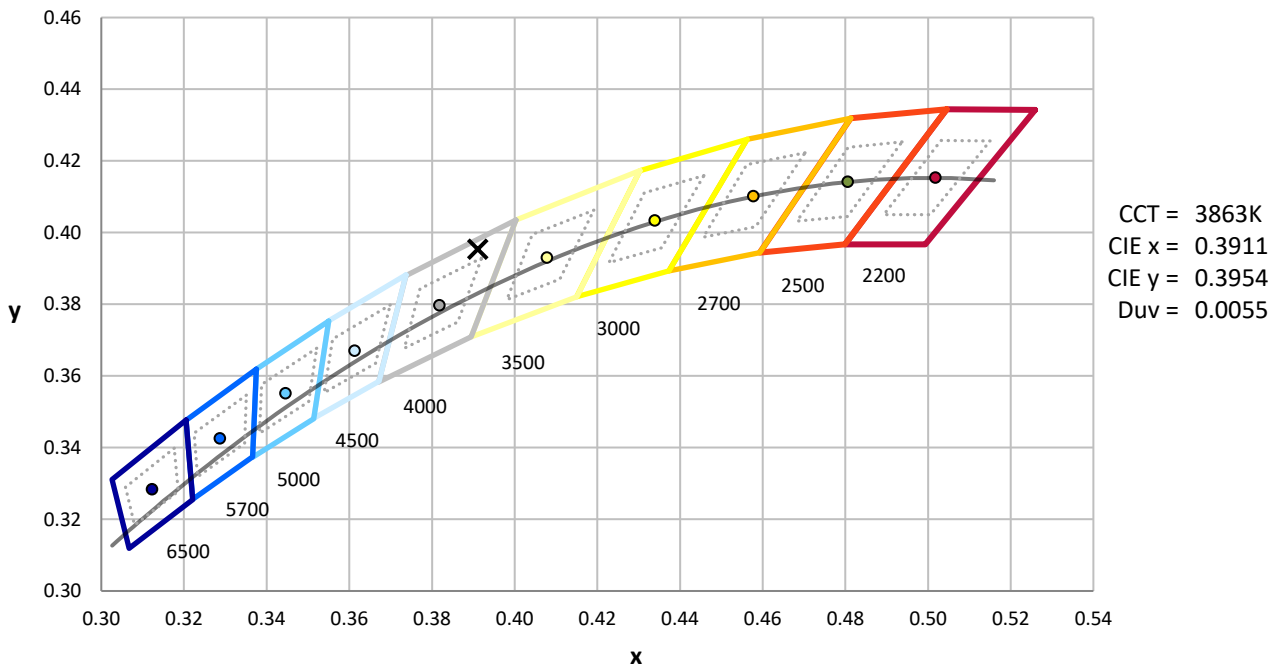
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



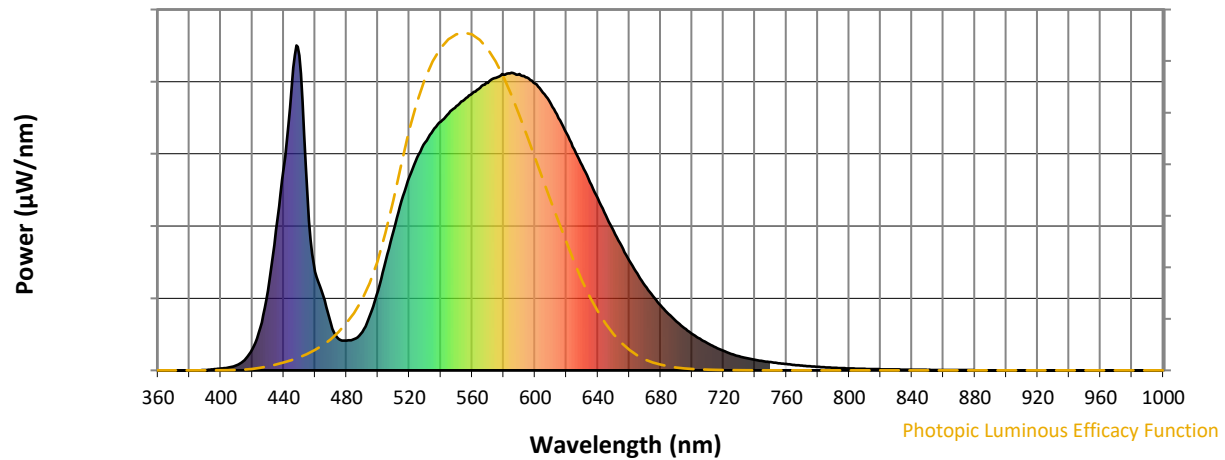
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 7-step quadrangle

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Photopic Flux vs. Wavelength

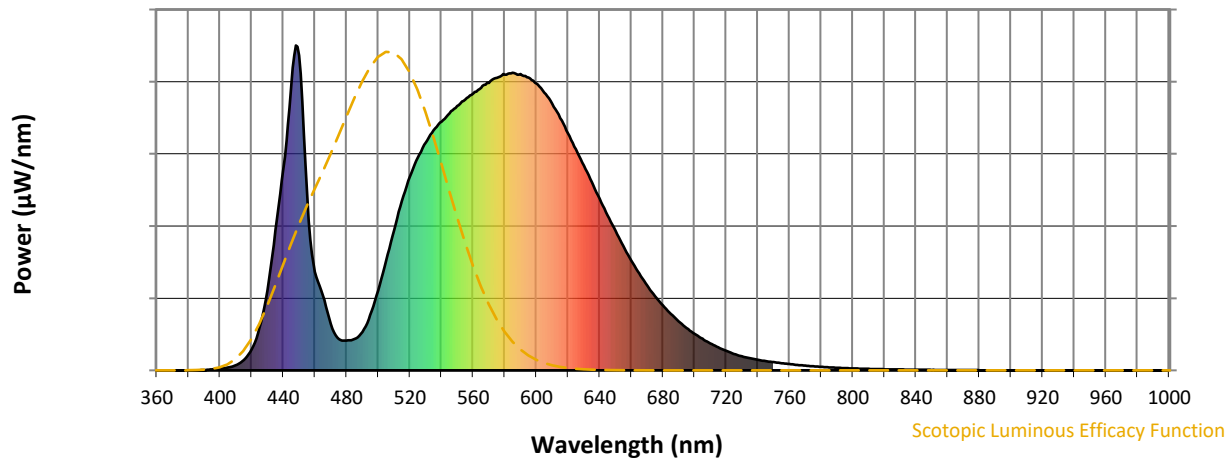


Photopic Lumens: NR

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	118	NR	620	730	NR	750	25	NR	880	1	NR
365	0	NR	495	170	NR	625	680	NR	755	22	NR	885	0	NR
370	0	NR	500	245	NR	630	630	NR	760	19	NR	890	0	NR
375	0	NR	505	338	NR	635	579	NR	765	17	NR	895	0	NR
380	0	NR	510	431	NR	640	529	NR	770	14	NR	900	0	NR
385	0	NR	515	521	NR	645	477	NR	775	13	NR	905	0	NR
390	1	NR	520	596	NR	650	429	NR	780	11	NR	910	0	NR
395	3	NR	525	655	NR	655	383	NR	785	9	NR	915	0	NR
400	6	NR	530	701	NR	660	338	NR	790	8	NR	920	0	NR
405	9	NR	535	739	NR	665	298	NR	795	7	NR	925	0	NR
410	16	NR	540	766	NR	670	261	NR	800	6	NR	930	0	NR
415	32	NR	545	791	NR	675	228	NR	805	5	NR	935	0	NR
420	65	NR	550	813	NR	680	200	NR	810	5	NR	940	0	NR
425	131	NR	555	833	NR	685	173	NR	815	4	NR	945	0	NR
430	245	NR	560	852	NR	690	151	NR	820	3	NR	950	0	NR
435	432	NR	565	870	NR	695	130	NR	825	3	NR	955	0	NR
440	622	NR	570	885	NR	700	112	NR	830	3	NR	960	0	NR
445	870	NR	575	900	NR	705	97	NR	835	2	NR	965	0	NR
450	969	NR	580	911	NR	710	83	NR	840	2	NR	970	0	NR
455	544	NR	585	916	NR	715	71	NR	845	2	NR	975	0	NR
460	304	NR	590	912	NR	720	60	NR	850	1	NR	980	0	NR
465	231	NR	595	901	NR	725	51	NR	855	1	NR	985	0	NR
470	142	NR	600	882	NR	730	43	NR	860	1	NR	990	0	NR
475	96	NR	605	855	NR	735	37	NR	865	1	NR	995	0	NR
480	92	NR	610	820	NR	740	32	NR	870	1	NR	1000	0	NR
485	96	NR	615	776	NR	745	29	NR	875	1	NR			

REPORT NUMBER: SP1-2411-284-2

Scotopic Flux vs. Wavelength



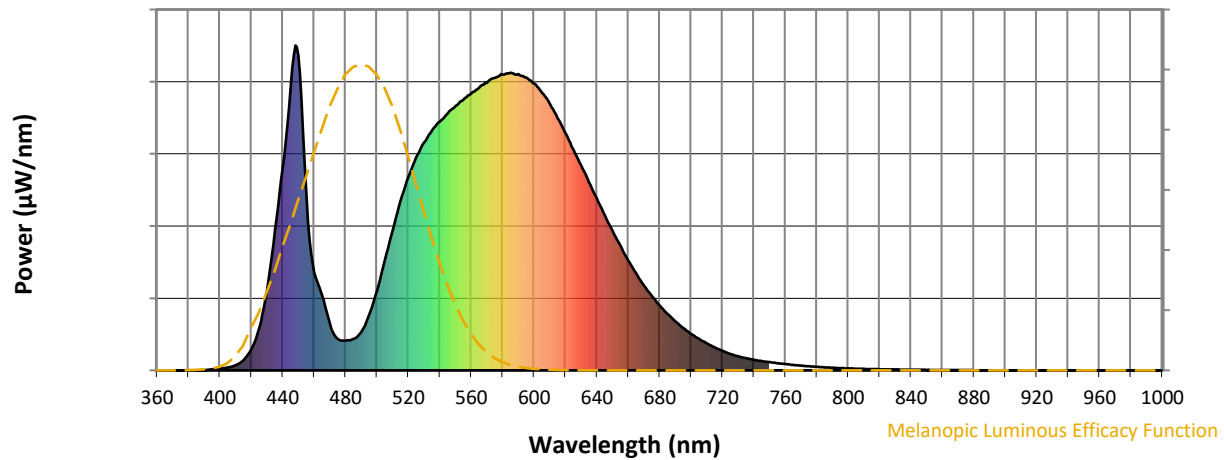
Scotopic Lumens: NR

S/P: 1.45

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	118	NR	620	730	NR	750	25	NR	880	1	NR
365	0	NR	495	170	NR	625	680	NR	755	22	NR	885	0	NR
370	0	NR	500	245	NR	630	630	NR	760	19	NR	890	0	NR
375	0	NR	505	338	NR	635	579	NR	765	17	NR	895	0	NR
380	0	NR	510	431	NR	640	529	NR	770	14	NR	900	0	NR
385	0	NR	515	521	NR	645	477	NR	775	13	NR	905	0	NR
390	1	NR	520	596	NR	650	429	NR	780	11	NR	910	0	NR
395	3	NR	525	655	NR	655	383	NR	785	9	NR	915	0	NR
400	6	NR	530	701	NR	660	338	NR	790	8	NR	920	0	NR
405	9	NR	535	739	NR	665	298	NR	795	7	NR	925	0	NR
410	16	NR	540	766	NR	670	261	NR	800	6	NR	930	0	NR
415	32	NR	545	791	NR	675	228	NR	805	5	NR	935	0	NR
420	65	NR	550	813	NR	680	200	NR	810	5	NR	940	0	NR
425	131	NR	555	833	NR	685	173	NR	815	4	NR	945	0	NR
430	245	NR	560	852	NR	690	151	NR	820	3	NR	950	0	NR
435	432	NR	565	870	NR	695	130	NR	825	3	NR	955	0	NR
440	622	NR	570	885	NR	700	112	NR	830	3	NR	960	0	NR
445	870	NR	575	900	NR	705	97	NR	835	2	NR	965	0	NR
450	969	NR	580	911	NR	710	83	NR	840	2	NR	970	0	NR
455	544	NR	585	916	NR	715	71	NR	845	2	NR	975	0	NR
460	304	NR	590	912	NR	720	60	NR	850	1	NR	980	0	NR
465	231	NR	595	901	NR	725	51	NR	855	1	NR	985	0	NR
470	142	NR	600	882	NR	730	43	NR	860	1	NR	990	0	NR
475	96	NR	605	855	NR	735	37	NR	865	1	NR	995	0	NR
480	92	NR	610	820	NR	740	32	NR	870	1	NR	1000	0	NR
485	96	NR	615	776	NR	745	29	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.72

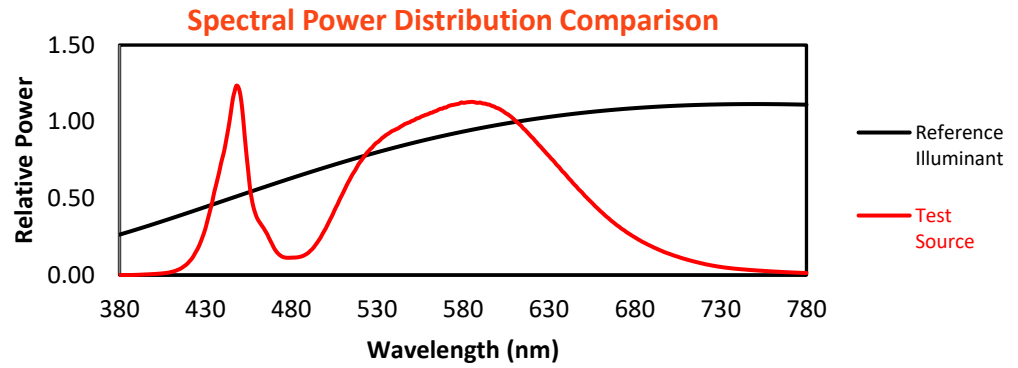
λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	118	NR	620	730	NR	750	25	NR	880	1	NR
365	0	NR	495	170	NR	625	680	NR	755	22	NR	885	0	NR
370	0	NR	500	245	NR	630	630	NR	760	19	NR	890	0	NR
375	0	NR	505	338	NR	635	579	NR	765	17	NR	895	0	NR
380	0	NR	510	431	NR	640	529	NR	770	14	NR	900	0	NR
385	0	NR	515	521	NR	645	477	NR	775	13	NR	905	0	NR
390	1	NR	520	596	NR	650	429	NR	780	11	NR	910	0	NR
395	3	NR	525	655	NR	655	383	NR	785	9	NR	915	0	NR
400	6	NR	530	701	NR	660	338	NR	790	8	NR	920	0	NR
405	9	NR	535	739	NR	665	298	NR	795	7	NR	925	0	NR
410	16	NR	540	766	NR	670	261	NR	800	6	NR	930	0	NR
415	32	NR	545	791	NR	675	228	NR	805	5	NR	935	0	NR
420	65	NR	550	813	NR	680	200	NR	810	5	NR	940	0	NR
425	131	NR	555	833	NR	685	173	NR	815	4	NR	945	0	NR
430	245	NR	560	852	NR	690	151	NR	820	3	NR	950	0	NR
435	432	NR	565	870	NR	695	130	NR	825	3	NR	955	0	NR
440	622	NR	570	885	NR	700	112	NR	830	3	NR	960	0	NR
445	870	NR	575	900	NR	705	97	NR	835	2	NR	965	0	NR
450	969	NR	580	911	NR	710	83	NR	840	2	NR	970	0	NR
455	544	NR	585	916	NR	715	71	NR	845	2	NR	975	0	NR
460	304	NR	590	912	NR	720	60	NR	850	1	NR	980	0	NR
465	231	NR	595	901	NR	725	51	NR	855	1	NR	985	0	NR
470	142	NR	600	882	NR	730	43	NR	860	1	NR	990	0	NR
475	96	NR	605	855	NR	735	37	NR	865	1	NR	995	0	NR
480	92	NR	610	820	NR	740	32	NR	870	1	NR	1000	0	NR
485	96	NR	615	776	NR	745	29	NR	875	1	NR			

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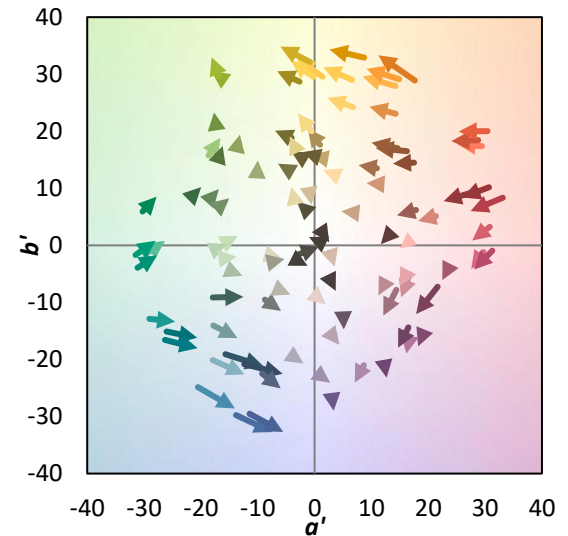
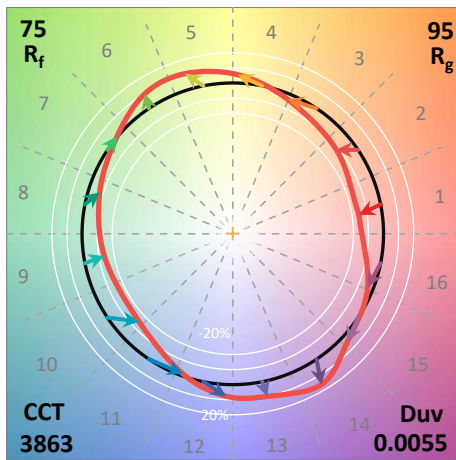
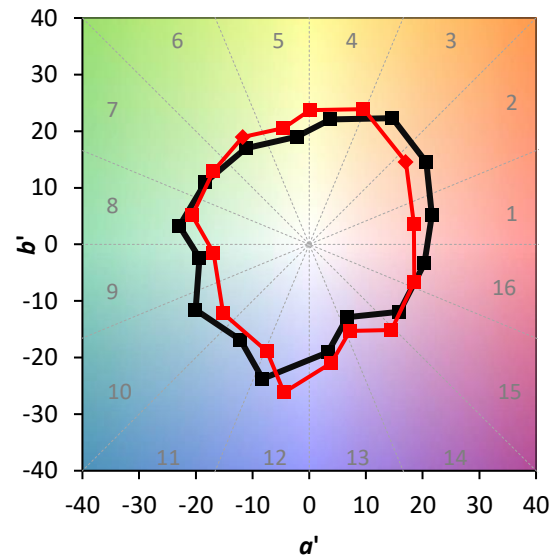
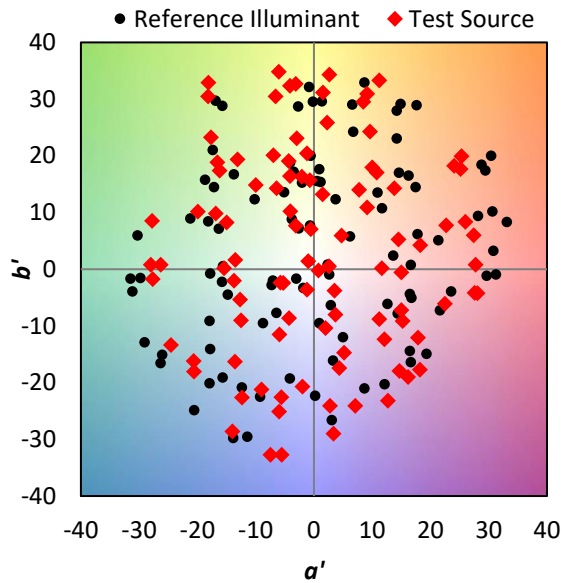
TM-30-18

Summary

$R_f = 74.7$
 $R_g = 95.4$
 $CIE R_a = 71.9$
 $R_g = -23.5$

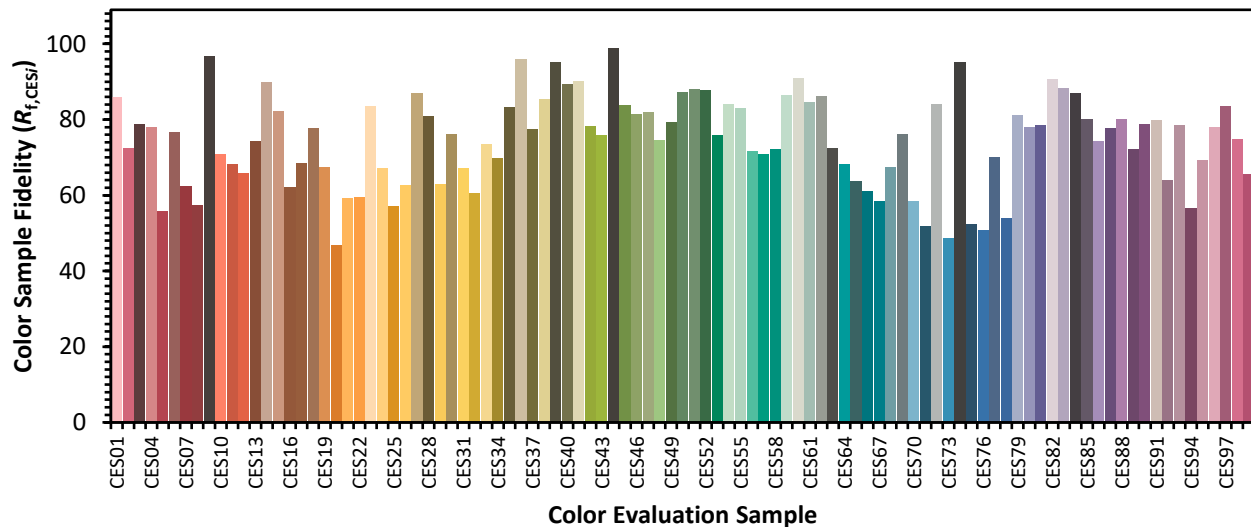


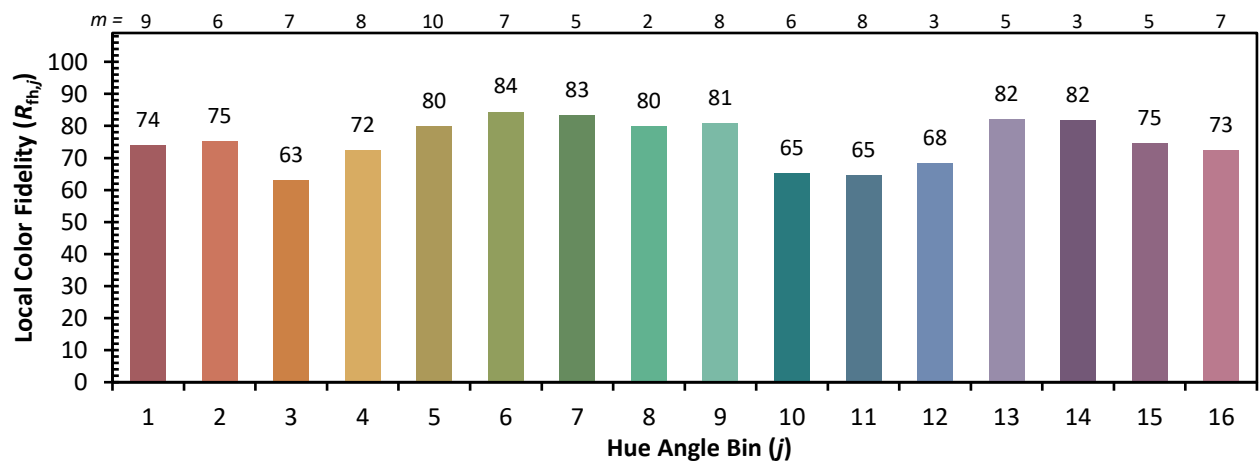
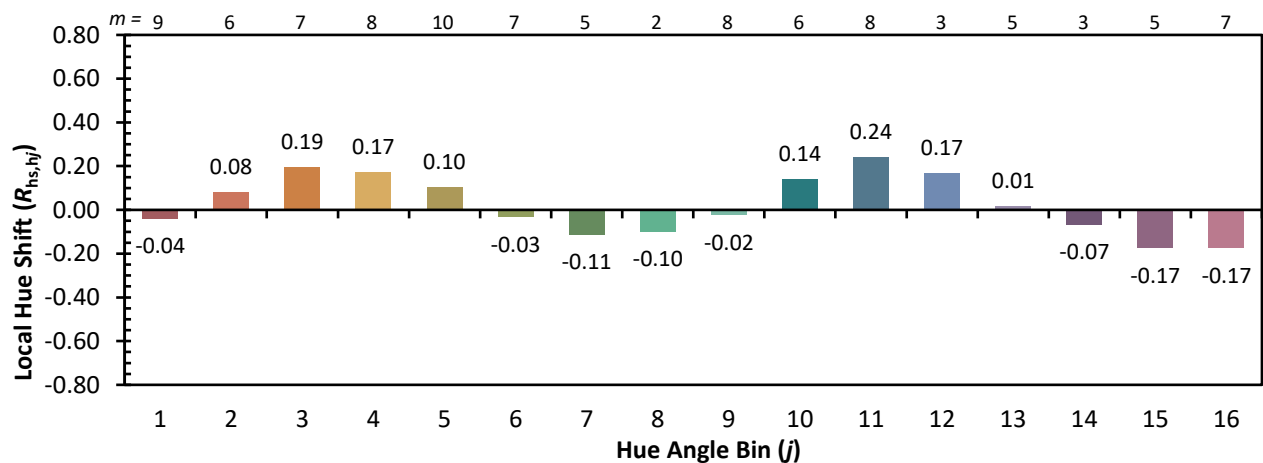
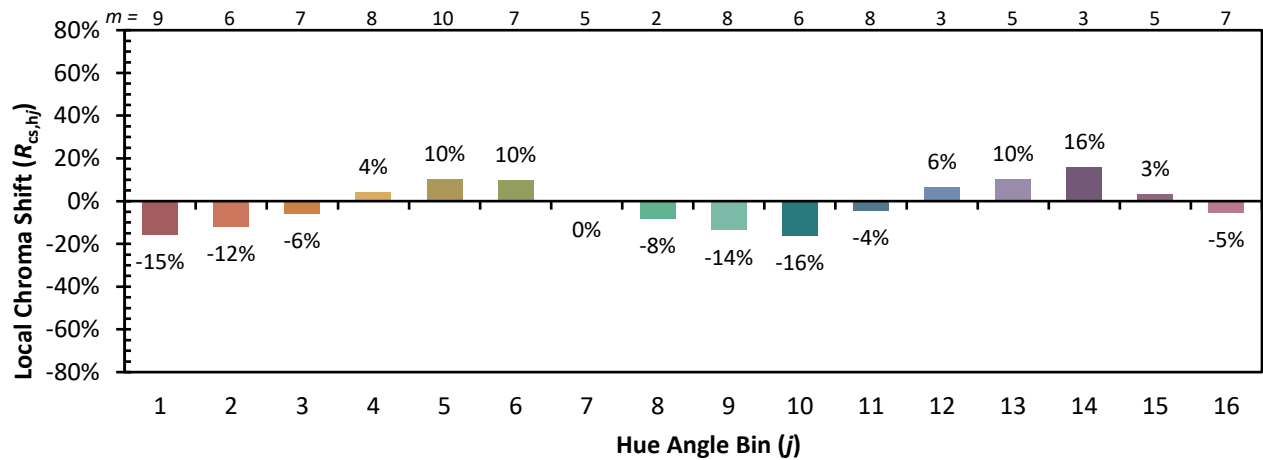
Color Vector Graphics



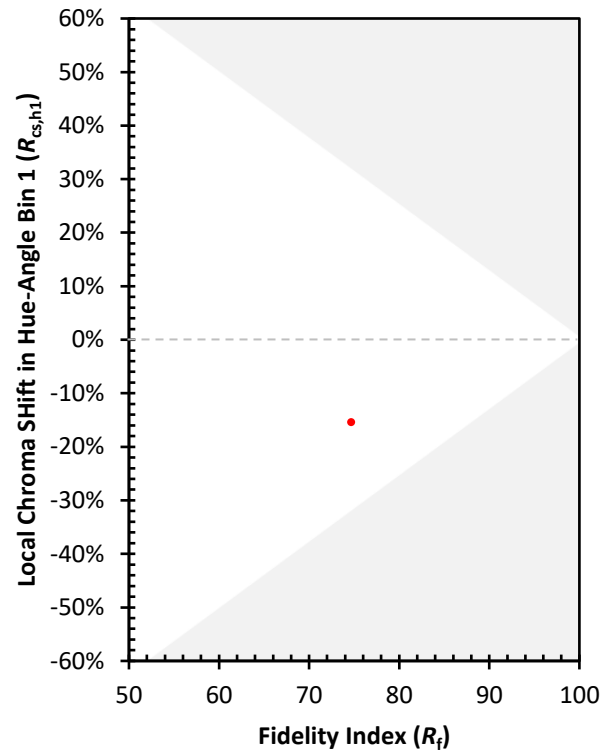
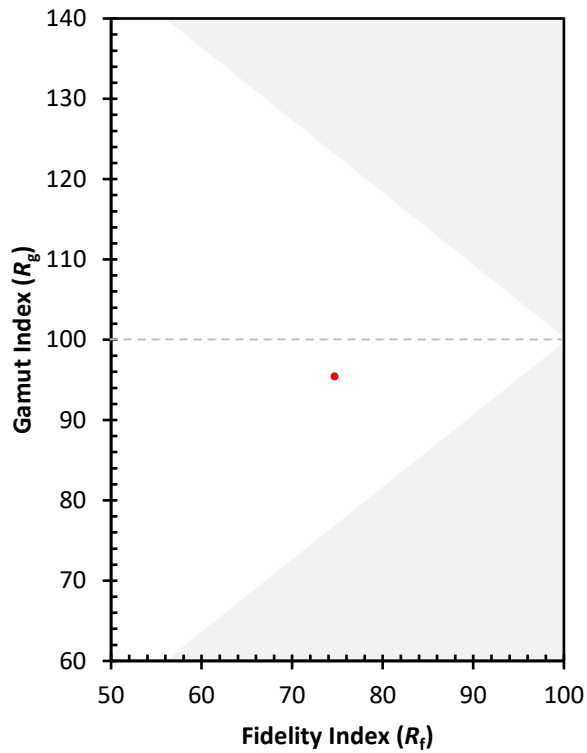
Individual Sample Fidelity Index ($R_{f,i}$)

CES01 = 85	CES26 = 63	CES51 = 88	CES76 = 51
CES02 = 61	CES27 = 87	CES52 = 88	CES77 = 70
CES03 = 30	CES28 = 81	CES53 = 76	CES78 = 54
CES04 = 70	CES29 = 63	CES54 = 84	CES79 = 81
CES05 = 47	CES30 = 76	CES55 = 83	CES80 = 78
CES06 = 50	CES31 = 67	CES56 = 72	CES81 = 79
CES07 = 40	CES32 = 61	CES57 = 71	CES82 = 91
CES08 = 39	CES33 = 73	CES58 = 72	CES83 = 88
CES09 = 29	CES34 = 70	CES59 = 86	CES84 = 87
CES10 = 74	CES35 = 83	CES60 = 91	CES85 = 80
CES11 = 57	CES36 = 96	CES61 = 85	CES86 = 74
CES12 = 63	CES37 = 77	CES62 = 86	CES87 = 78
CES13 = 42	CES38 = 85	CES63 = 72	CES88 = 80
CES14 = 74	CES39 = 95	CES64 = 68	CES89 = 72
CES15 = 71	CES40 = 89	CES65 = 64	CES90 = 79
CES16 = 46	CES41 = 90	CES66 = 61	CES91 = 80
CES17 = 49	CES42 = 78	CES67 = 58	CES92 = 64
CES18 = 56	CES43 = 76	CES68 = 67	CES93 = 78
CES19 = 71	CES44 = 99	CES69 = 76	CES94 = 57
CES20 = 65	CES45 = 84	CES70 = 58	CES95 = 69
CES21 = 86	CES46 = 81	CES71 = 52	CES96 = 78
CES22 = 78	CES47 = 82	CES72 = 84	CES97 = 84
CES23 = 92	CES48 = 75	CES73 = 49	CES98 = 75
CES24 = 91	CES49 = 79	CES74 = 95	CES99 = 66
CES25 = 72	CES50 = 87	CES75 = 52	



Color Rendition by Hue-Angle Bin


Measure Comparisons



(END OF REPORT)