

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: P1445227

Luminaire Tested: TPTN-VA2-735-U-DL-GM

Issue Date: 05/21/2026

Test Information

Test Method: LM-79-2024
Report Number: P1445227
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/21/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: MCGRAW-EDISON
Catalog Number: TPTN-VA2-735-U-DL-GM
Description: TOPTIER NANO SPIDER MOUNT VISUAL COMFORT LED LUMINAIRE 42W 70CRI 3500K w/
DRIVE LANE TYPE IV DISTRIBUTION OPTIC
Light Source: 3500K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3568.6 lumens
Efficiency: N/A
Efficacy: 84.8 lumens/watt
Luminous Opening: Circular (Dia: 0.71' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 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

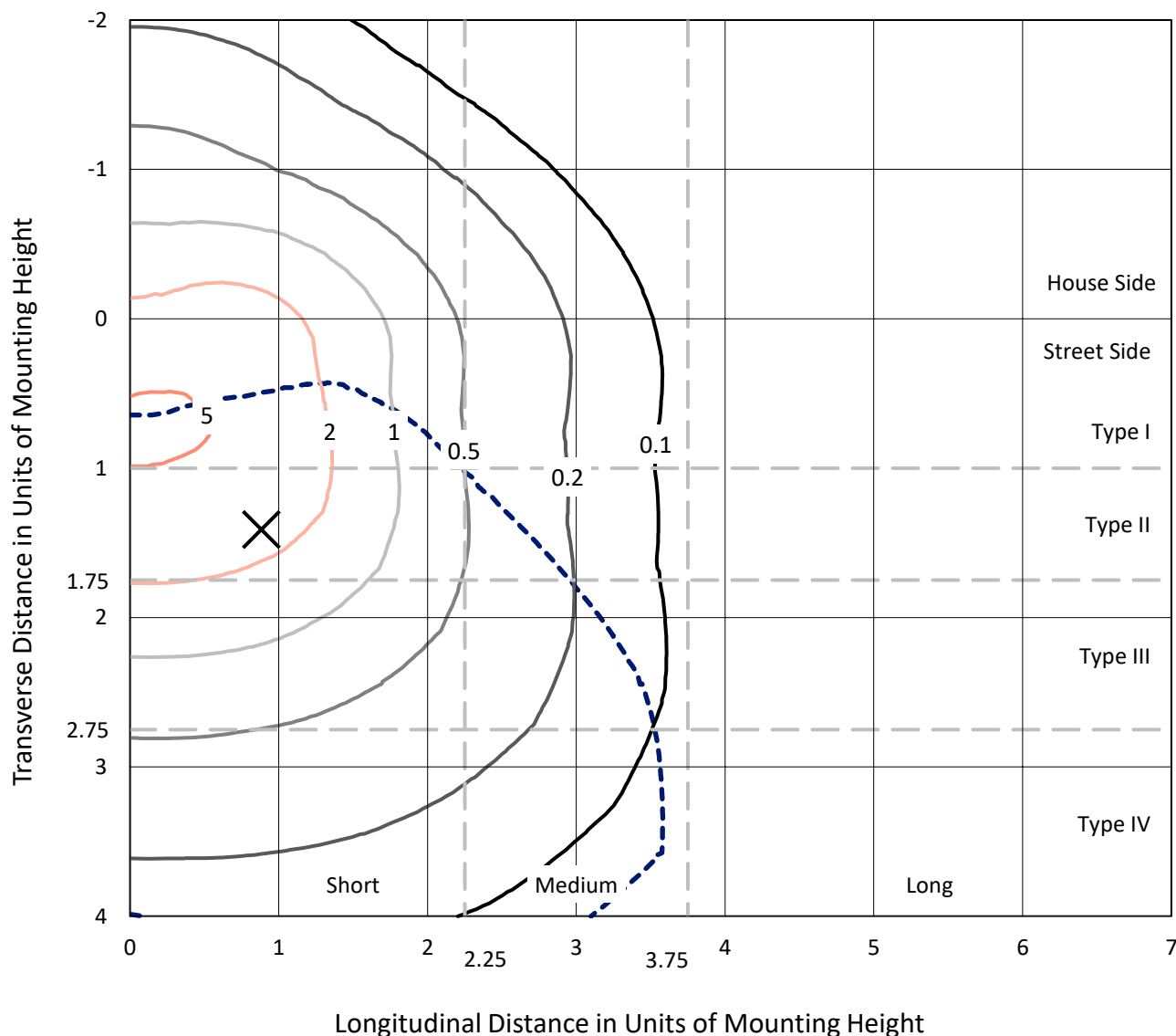
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CATALOG NUMBER: TPTN-VA2-735-U-DL-GM

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



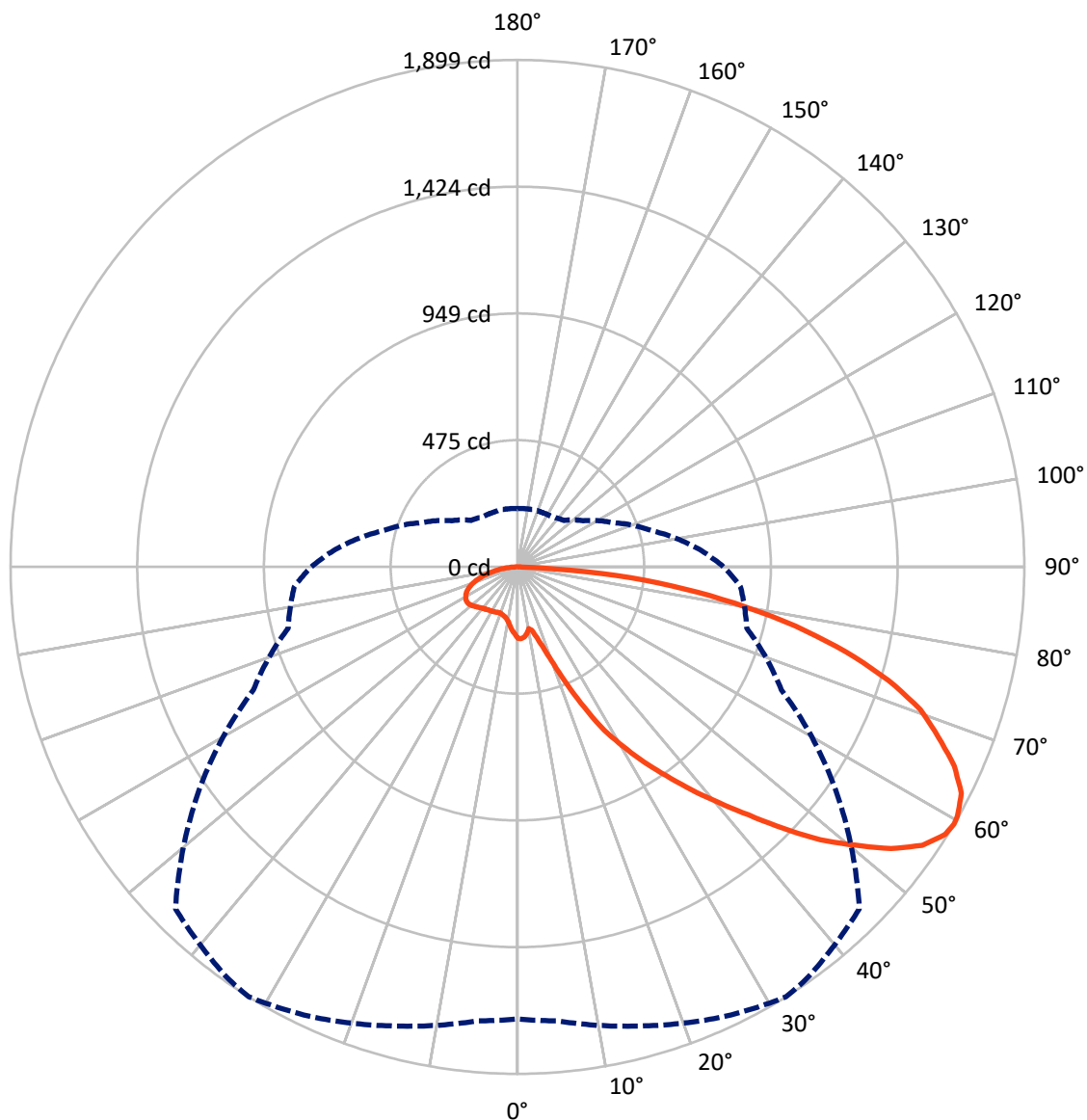
Based on 10 foot mounting height. Maximum calculated value = 5.7 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 59-Deg Vertical

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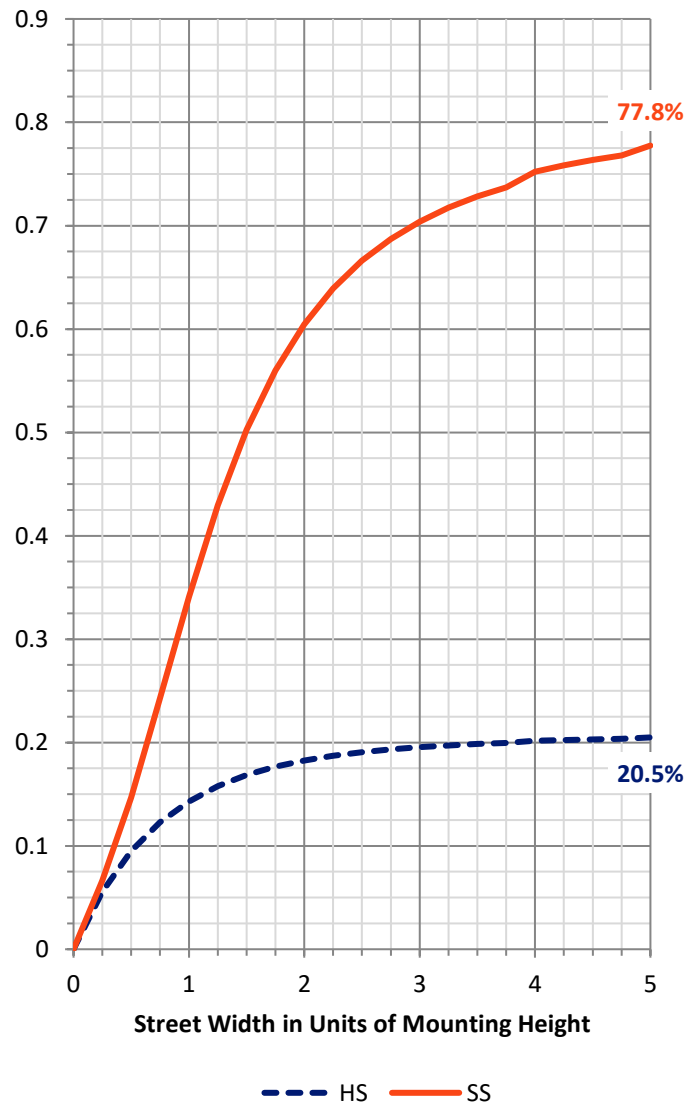
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	742.0	0.0	742.0
	% Fixture	20.8	0.0	20.8
Street Side	Lumens	2826.6	0.0	2826.6
	% Fixture	79.2	0.0	79.2
Total	Lumens	3568.6	0.0	3568.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.3	0.7
10°-20°	70.4	2.0
20°-30°	173.0	4.8
30°-40°	339.5	9.5
40°-50°	564.5	15.8
50°-60°	797.1	22.3
60°-70°	837.2	23.5
70°-80°	603.8	16.9
80°-90°	159.8	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°	3568.6	100.0
0°-180°	3568.6	100.0

Coefficient of Utilization



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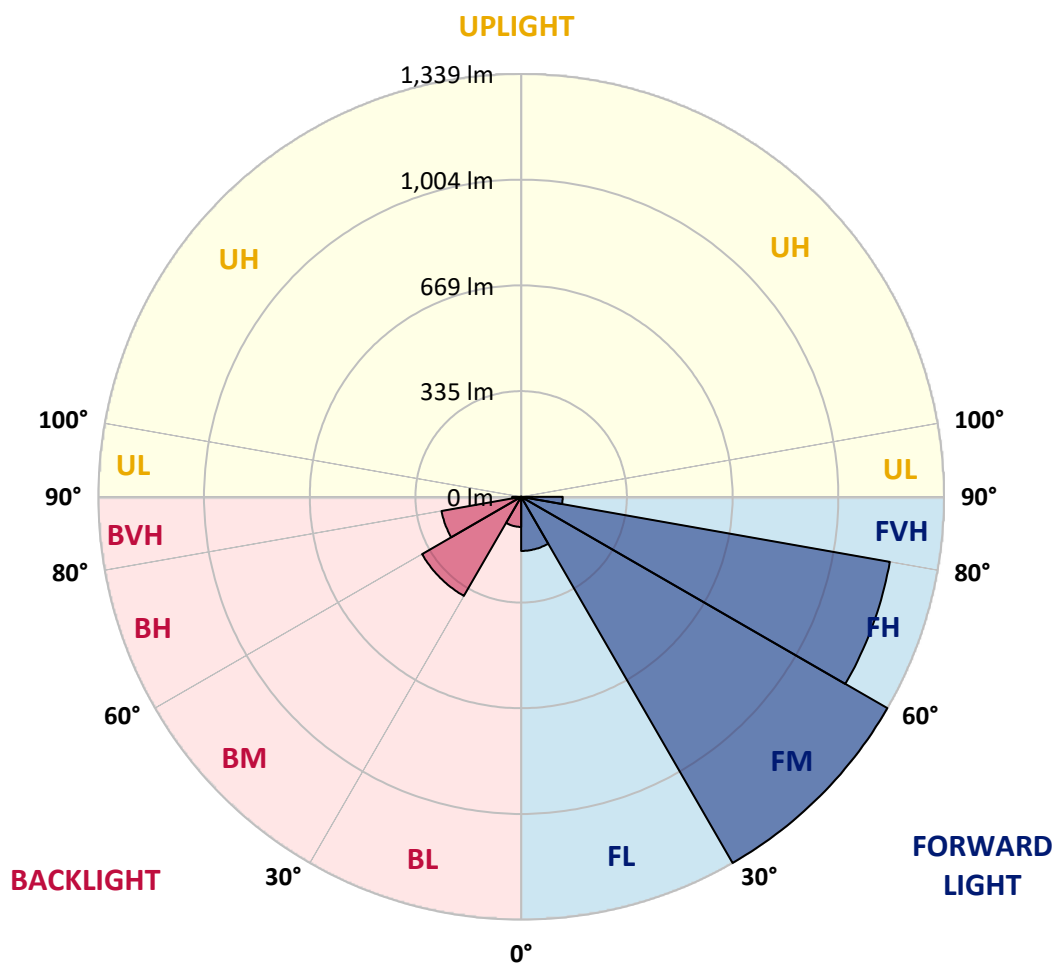
CATALOG NUMBER: TPTN-VA2-735-U-DL-GM

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	171.3	4.8			
FM	(30°-60°)	1338.7	37.5			
FH	(60°-80°)	1185.1	33.2			G1/1800
FVH	(80°-90°)	131.4	3.7			G2/225
BL	(0°-30°)	95.4	2.7	B0/110		
BM	(30°-60°)	362.4	10.2	B1/1000		
BH	(60°-80°)	255.9	7.2	B1/500		G1/500
BVH	(80°-90°)	28.4	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: P1445227

CATALOG NUMBER: TPTN-VA2-735-U-DL-GM

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	267.4	267.4	267.4	267.4	267.4	267.4	267.4	267.4	267.4	267.4	267.4
2.5°	271.6	270.9	270.9	270.2	269.5	269.5	268.8	267.4	265.4	263.3	261.9
5°	268.8	268.1	266.7	266.1	264.7	264.0	262.6	259.9	258.5	259.2	259.2
7.5°	257.1	257.8	256.4	254.3	252.3	251.6	248.1	247.4	246.8	244.7	246.1
10°	255.0	255.7	249.5	242.6	235.0	232.3	229.5	230.2	234.3	237.1	239.9
12.5°	272.3	269.5	264.0	254.3	244.7	241.9	234.3	234.3	237.8	240.6	243.3
15°	298.4	297.8	291.6	284.0	275.7	272.3	258.5	252.3	253.0	255.0	257.1
17.5°	337.0	339.1	341.2	331.5	321.9	315.0	295.0	281.2	275.7	276.4	276.4
20°	406.0	406.7	411.5	403.2	388.1	378.4	346.7	321.2	308.8	306.0	304.7
22.5°	504.5	501.8	501.8	499.7	479.7	468.0	417.7	372.2	350.1	342.6	341.9
25°	619.0	617.6	620.3	610.0	583.8	575.5	505.9	439.1	399.8	388.7	380.5
27.5°	730.6	732.0	733.4	714.8	692.7	678.2	597.6	518.3	454.9	434.9	419.8
30°	836.1	839.5	821.6	795.4	779.6	761.6	674.1	581.0	506.6	472.1	457.7
32.5°	940.2	936.7	904.3	884.3	871.2	853.3	751.3	647.9	559.0	510.7	491.4
35°	1041.5	1031.8	991.2	971.9	960.8	945.7	844.3	716.8	610.0	549.3	525.9
37.5°	1135.9	1130.4	1083.5	1073.9	1059.4	1047.7	945.0	789.2	665.1	594.8	565.9
40°	1224.1	1224.8	1191.0	1175.2	1160.7	1149.7	1047.7	865.0	722.3	641.7	610.0
42.5°	1315.8	1315.1	1295.8	1285.5	1270.3	1262.0	1155.2	949.1	782.3	691.3	654.1
45°	1402.0	1408.2	1409.5	1403.3	1397.1	1389.5	1286.8	1046.3	853.3	741.6	702.4
47.5°	1503.3	1510.9	1521.9	1524.0	1527.4	1515.0	1415.1	1138.0	922.2	791.3	747.8
50°	1578.4	1586.0	1621.1	1632.2	1638.4	1632.9	1536.4	1237.2	984.3	838.1	783.0
52.5°	1652.8	1657.0	1706.6	1745.2	1752.8	1743.8	1655.6	1331.7	1044.9	875.4	818.8
55°	1697.0	1703.2	1767.3	1824.5	1840.3	1836.9	1759.0	1397.8	1082.1	901.6	841.6
57.5°	1701.1	1712.1	1785.9	1854.8	1890.0	1881.0	1806.6	1441.9	1093.2	898.8	842.3
59°	1693.5	1706.6	1780.4	1856.2	1898.9	1885.8	1811.4	1455.0	1091.1	889.1	838.8
60°	1687.3	1700.4	1770.7	1851.4	1894.1	1883.1	1810.7	1461.2	1082.1	883.6	836.1
62.5°	1650.1	1672.8	1742.4	1814.1	1866.5	1872.7	1796.9	1464.0	1063.5	865.7	821.6
65°	1562.6	1584.6	1676.3	1763.8	1798.3	1819.6	1745.9	1428.1	1020.8	829.2	774.0
67.5°	1453.0	1471.6	1561.2	1676.3	1700.4	1719.7	1674.9	1357.2	966.3	758.2	715.5
70°	1340.6	1363.4	1435.7	1556.3	1601.8	1615.6	1583.2	1280.0	888.5	687.2	658.2
72.5°	1189.7	1208.3	1294.4	1406.1	1453.6	1470.9	1444.7	1177.3	789.9	615.5	588.6
75°	1021.5	1032.5	1113.2	1226.2	1271.7	1288.9	1280.6	1046.3	683.7	525.9	498.3
77.5°	818.2	843.0	909.8	1000.1	1064.9	1068.4	1067.7	887.1	562.4	414.2	404.6
80°	610.7	632.7	696.2	781.6	826.4	838.8	837.5	699.6	436.3	317.1	301.2
82.5°	386.7	400.5	466.6	535.6	582.4	593.5	605.9	505.2	304.0	210.2	192.3
85°	153.7	153.0	210.2	284.0	318.4	337.0	346.0	294.3	164.7	93.7	79.3
87.5°	11.0	11.7	14.5	17.9	18.6	20.0	22.7	28.9	22.7	20.0	10.3
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: P1445227

CATALOG NUMBER: TPTN-VA2-735-U-DL-GM

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	267.4	267.4	267.4	267.4	267.4	267.4	267.4	267.4	267.4	267.4	267.4
2.5°	261.2	260.5	257.8	256.4	254.3	253.6	253.0	251.6	250.9	250.2	250.9
5°	257.1	257.1	254.3	252.3	247.4	244.0	240.6	235.7	232.3	230.2	229.5
7.5°	247.4	248.1	247.4	243.3	239.2	233.7	225.4	217.1	210.9	207.5	206.1
10°	239.2	240.6	239.9	237.1	230.2	221.3	210.9	199.9	190.2	184.0	183.3
12.5°	243.3	243.3	241.2	235.7	226.8	215.0	202.0	187.5	176.5	169.6	168.2
15°	257.1	255.7	249.5	240.6	226.8	212.3	196.4	179.9	166.8	159.2	158.5
17.5°	277.1	274.3	263.3	246.8	228.8	210.9	193.7	175.1	159.2	149.6	148.2
20°	303.3	297.1	279.8	255.0	233.0	212.3	190.9	170.2	154.4	143.4	140.6
22.5°	335.7	325.3	298.4	265.4	238.5	215.0	191.6	168.9	151.6	141.3	140.6
25°	369.4	355.7	319.8	277.8	244.7	217.1	192.3	171.6	154.4	146.8	145.4
27.5°	403.9	387.4	342.6	292.2	251.6	220.6	195.1	175.8	162.7	156.5	155.8
30°	437.7	415.6	362.6	304.7	258.5	222.6	197.1	175.8	166.8	162.0	161.3
32.5°	468.7	441.8	381.2	317.7	265.4	226.8	199.2	177.8	169.6	168.2	167.5
35°	501.8	472.8	400.5	328.8	272.3	230.2	201.3	179.9	173.7	173.7	173.7
37.5°	537.6	503.8	421.1	341.2	279.2	236.4	204.0	184.7	179.2	180.6	180.6
40°	575.5	536.9	442.5	354.3	285.4	239.9	206.1	189.5	184.7	186.1	186.8
42.5°	614.8	569.3	464.6	366.0	293.6	244.0	210.2	195.7	192.3	193.7	193.7
45°	654.8	603.8	485.2	378.4	300.5	248.1	215.0	202.6	199.9	200.6	200.6
47.5°	694.1	634.8	503.8	389.4	306.7	251.6	219.9	209.5	207.5	208.2	207.5
50°	727.2	661.7	520.4	397.7	312.9	255.0	225.4	216.4	215.0	213.7	213.0
52.5°	756.1	685.8	533.5	403.9	315.7	256.4	230.2	223.3	221.9	219.2	218.5
55°	772.0	696.8	536.9	405.3	313.6	255.0	231.6	226.8	225.4	221.9	221.9
57.5°	775.4	696.8	529.4	399.1	306.7	250.2	230.9	225.4	224.0	220.6	220.6
59°	772.0	692.7	522.5	392.2	301.2	246.1	228.1	224.0	221.9	219.2	219.2
60°	768.5	689.9	517.6	385.3	297.8	243.3	225.4	221.9	219.9	217.8	217.8
62.5°	753.4	674.1	504.5	367.4	286.0	233.0	219.2	217.1	215.7	213.7	213.0
65°	711.3	636.2	477.0	347.4	268.1	220.6	208.8	208.2	207.5	204.0	202.6
67.5°	661.7	589.3	437.0	321.9	245.4	206.1	196.4	196.4	193.7	190.9	191.6
70°	610.7	544.5	395.6	290.2	219.2	187.5	179.9	180.6	177.8	177.1	177.8
72.5°	543.1	481.1	350.1	251.6	192.3	166.1	159.9	162.0	161.3	160.6	160.6
75°	457.7	408.0	295.0	212.3	162.7	142.7	139.2	139.9	140.6	139.9	139.9
77.5°	372.9	331.5	233.7	167.5	128.9	115.1	114.4	117.9	118.6	117.9	118.6
80°	276.4	244.0	170.2	122.7	95.8	88.2	89.6	94.4	95.8	95.8	97.2
82.5°	177.8	153.0	110.3	79.3	64.1	62.0	66.2	71.0	73.1	73.1	73.1
85°	70.3	63.4	51.0	39.3	36.5	39.3	44.1	46.9	50.3	50.3	49.6
87.5°	4.1	10.3	15.9	15.9	15.9	17.2	17.2	17.9	18.6	17.9	17.9
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: SP1-2411-284-1

Test Date: 11/15/2024

Luminaire Tested: TTN-D0-735-U-WQ

Data in this report applies to families of products including TTN-D0-735-U-WQ

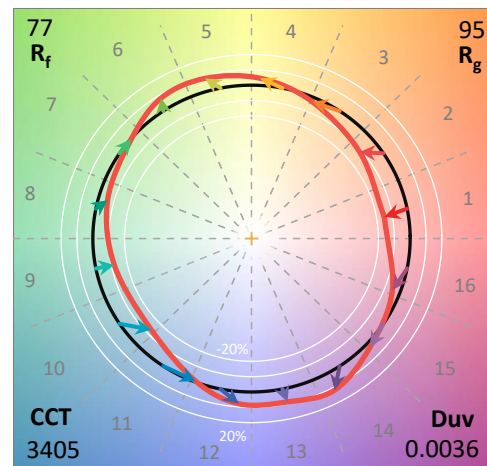
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2411-284-1
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 11/15/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: MCGRAW EDISON
 Catalog Number: **TTN-D0-735-U-WQ**
 Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE. 3500K, 70 CRI LEDS AND WIDE DISTRIBUTION

Spectral Parameters

CCT (K): 3405
 CIE u' : 0.2365
 CIE v' : 0.5180
 Duv: 0.0036
 CIE x: 0.4148
 CIE y: 0.4038
 CIE z: 0.1814
 Peak Wavelength (nm): 596
 Dominant Wavelength (nm): 579
 Purity: 45.70672
 R_f: 76.6
 R_g: 95.4

CRI (Ra): 73.9
 R1: 71.3
 R2: 80.3
 R3: 87.8
 R4: 73.2
 R5: 69.8
 R6: 71.8
 R7: 82.8
 R8: 54.1
 R9: -18.0
 R10: 53.1
 R11: 68.6
 R12: 42.6
 R13: 72.5
 R14: 92.7
 R15: 64.3



Test Conditions

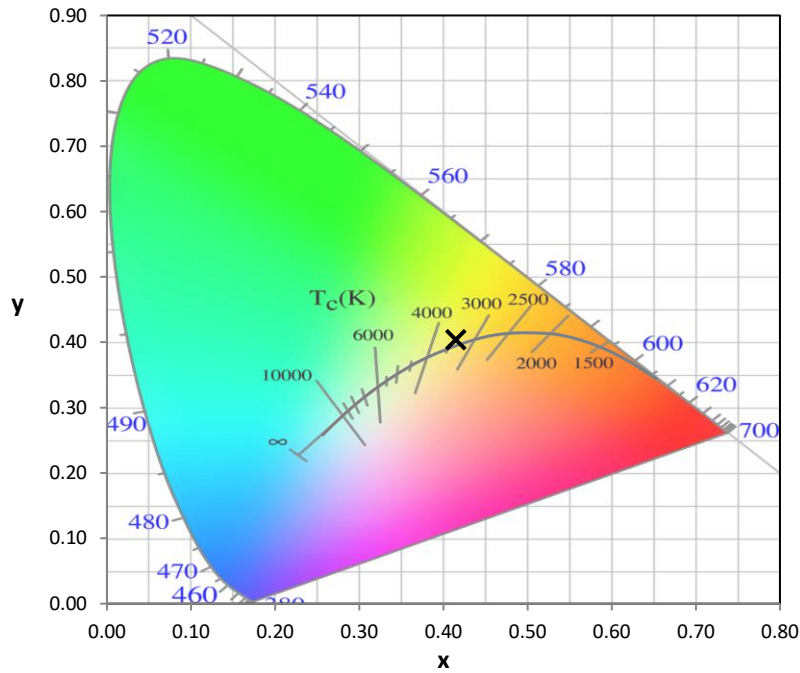
Stabilization Time: 38M
 Operation Time: 1H 38M
 Sphere Temperature (°C): 24.9

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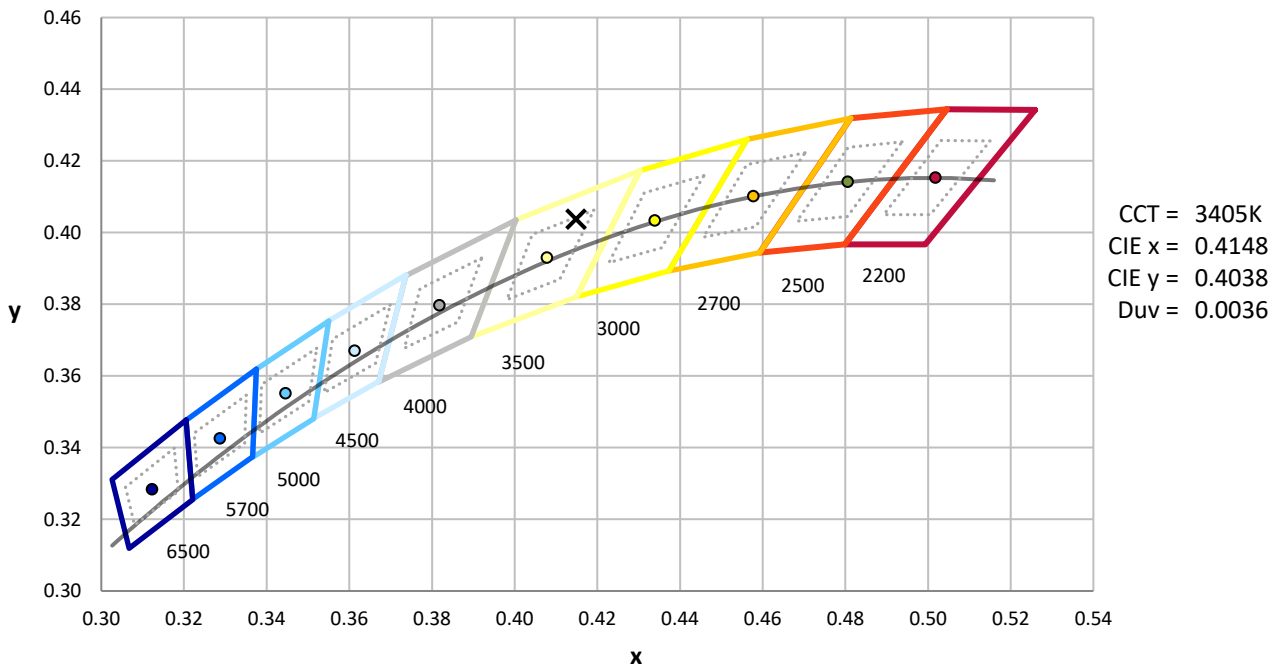
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



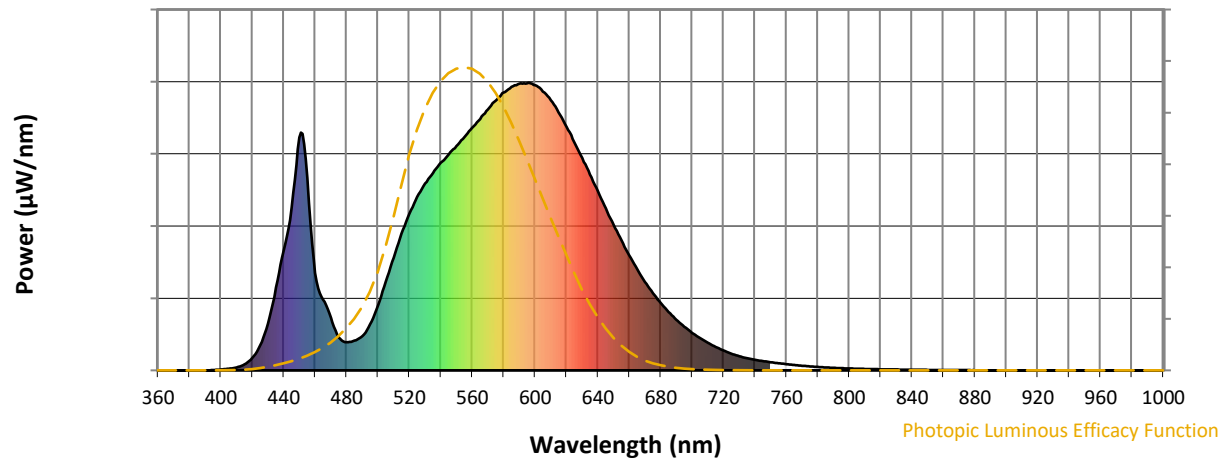
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 4-step quadrangle

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Photopic Flux vs. Wavelength

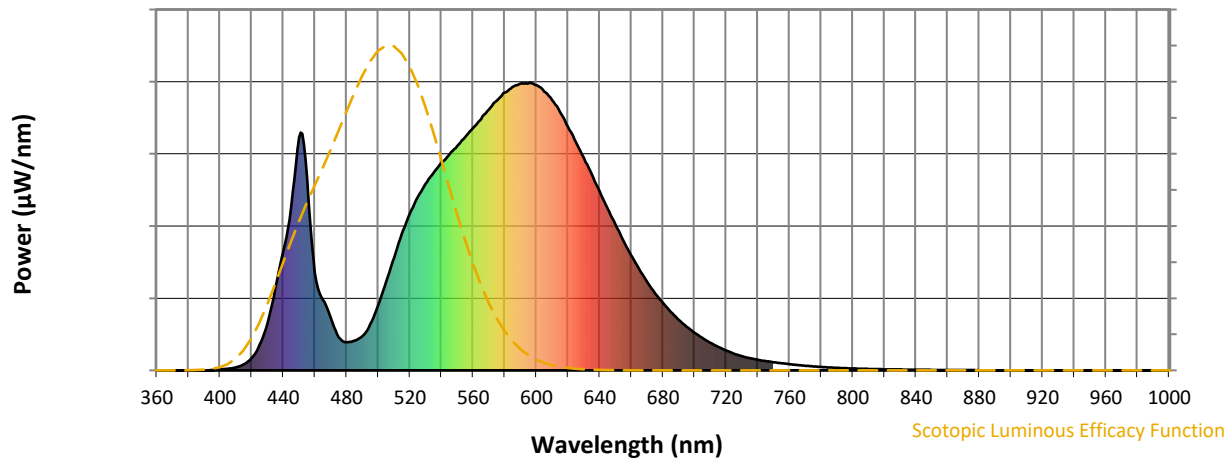


Photopic Lumens: NR

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	119	NR	620	846	NR	750	28	NR	880	1	NR
365	0	NR	495	160	NR	625	793	NR	755	25	NR	885	0	NR
370	0	NR	500	225	NR	630	739	NR	760	22	NR	890	0	NR
375	0	NR	505	308	NR	635	681	NR	765	19	NR	895	0	NR
380	0	NR	510	392	NR	640	623	NR	770	16	NR	900	0	NR
385	0	NR	515	474	NR	645	563	NR	775	14	NR	905	0	NR
390	0	NR	520	545	NR	650	506	NR	780	12	NR	910	0	NR
395	1	NR	525	603	NR	655	451	NR	785	10	NR	915	0	NR
400	3	NR	530	649	NR	660	399	NR	790	9	NR	920	0	NR
405	5	NR	535	687	NR	665	352	NR	795	8	NR	925	0	NR
410	11	NR	540	721	NR	670	307	NR	800	6	NR	930	0	NR
415	21	NR	545	751	NR	675	268	NR	805	6	NR	935	0	NR
420	43	NR	550	779	NR	680	234	NR	810	5	NR	940	0	NR
425	88	NR	555	811	NR	685	203	NR	815	4	NR	945	0	NR
430	163	NR	560	843	NR	690	176	NR	820	4	NR	950	0	NR
435	288	NR	565	873	NR	695	152	NR	825	3	NR	955	0	NR
440	416	NR	570	907	NR	700	131	NR	830	3	NR	960	0	NR
445	566	NR	575	938	NR	705	112	NR	835	3	NR	965	0	NR
450	810	NR	580	965	NR	710	96	NR	840	2	NR	970	0	NR
455	669	NR	585	986	NR	715	81	NR	845	2	NR	975	0	NR
460	338	NR	590	997	NR	720	69	NR	850	2	NR	980	0	NR
465	246	NR	595	997	NR	725	58	NR	855	1	NR	985	0	NR
470	182	NR	600	991	NR	730	49	NR	860	1	NR	990	0	NR
475	115	NR	605	968	NR	735	42	NR	865	1	NR	995	0	NR
480	97	NR	610	939	NR	740	37	NR	870	1	NR	1000	0	NR
485	103	NR	615	896	NR	745	32	NR	875	1	NR			

REPORT NUMBER: SP1-2411-284-1

Scotopic Flux vs. Wavelength



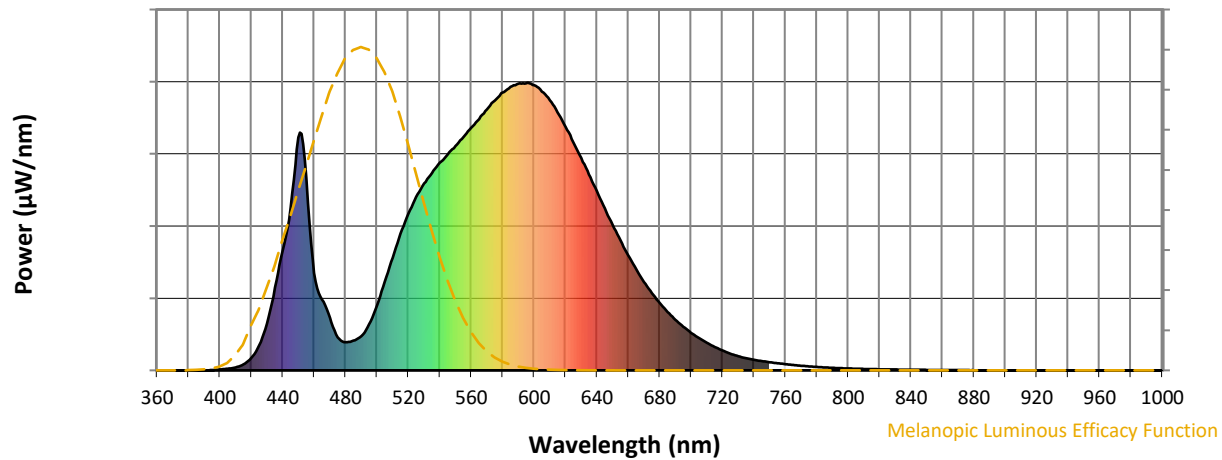
Scotopic Lumens: NR

S/P: 1.33

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	119	NR	620	846	NR	750	28	NR	880	1	NR
365	0	NR	495	160	NR	625	793	NR	755	25	NR	885	0	NR
370	0	NR	500	225	NR	630	739	NR	760	22	NR	890	0	NR
375	0	NR	505	308	NR	635	681	NR	765	19	NR	895	0	NR
380	0	NR	510	392	NR	640	623	NR	770	16	NR	900	0	NR
385	0	NR	515	474	NR	645	563	NR	775	14	NR	905	0	NR
390	0	NR	520	545	NR	650	506	NR	780	12	NR	910	0	NR
395	1	NR	525	603	NR	655	451	NR	785	10	NR	915	0	NR
400	3	NR	530	649	NR	660	399	NR	790	9	NR	920	0	NR
405	5	NR	535	687	NR	665	352	NR	795	8	NR	925	0	NR
410	11	NR	540	721	NR	670	307	NR	800	6	NR	930	0	NR
415	21	NR	545	751	NR	675	268	NR	805	6	NR	935	0	NR
420	43	NR	550	779	NR	680	234	NR	810	5	NR	940	0	NR
425	88	NR	555	811	NR	685	203	NR	815	4	NR	945	0	NR
430	163	NR	560	843	NR	690	176	NR	820	4	NR	950	0	NR
435	288	NR	565	873	NR	695	152	NR	825	3	NR	955	0	NR
440	416	NR	570	907	NR	700	131	NR	830	3	NR	960	0	NR
445	566	NR	575	938	NR	705	112	NR	835	3	NR	965	0	NR
450	810	NR	580	965	NR	710	96	NR	840	2	NR	970	0	NR
455	669	NR	585	986	NR	715	81	NR	845	2	NR	975	0	NR
460	338	NR	590	997	NR	720	69	NR	850	2	NR	980	0	NR
465	246	NR	595	997	NR	725	58	NR	855	1	NR	985	0	NR
470	182	NR	600	991	NR	730	49	NR	860	1	NR	990	0	NR
475	115	NR	605	968	NR	735	42	NR	865	1	NR	995	0	NR
480	97	NR	610	939	NR	740	37	NR	870	1	NR	1000	0	NR
485	103	NR	615	896	NR	745	32	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.47

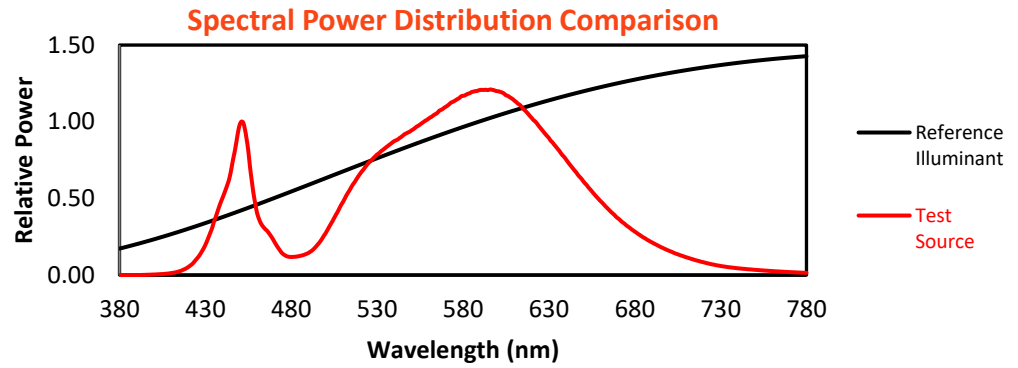
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	119	NR	620	846	NR	750	28	NR	880	1	NR
365	0	NR	495	160	NR	625	793	NR	755	25	NR	885	0	NR
370	0	NR	500	225	NR	630	739	NR	760	22	NR	890	0	NR
375	0	NR	505	308	NR	635	681	NR	765	19	NR	895	0	NR
380	0	NR	510	392	NR	640	623	NR	770	16	NR	900	0	NR
385	0	NR	515	474	NR	645	563	NR	775	14	NR	905	0	NR
390	0	NR	520	545	NR	650	506	NR	780	12	NR	910	0	NR
395	1	NR	525	603	NR	655	451	NR	785	10	NR	915	0	NR
400	3	NR	530	649	NR	660	399	NR	790	9	NR	920	0	NR
405	5	NR	535	687	NR	665	352	NR	795	8	NR	925	0	NR
410	11	NR	540	721	NR	670	307	NR	800	6	NR	930	0	NR
415	21	NR	545	751	NR	675	268	NR	805	6	NR	935	0	NR
420	43	NR	550	779	NR	680	234	NR	810	5	NR	940	0	NR
425	88	NR	555	811	NR	685	203	NR	815	4	NR	945	0	NR
430	163	NR	560	843	NR	690	176	NR	820	4	NR	950	0	NR
435	288	NR	565	873	NR	695	152	NR	825	3	NR	955	0	NR
440	416	NR	570	907	NR	700	131	NR	830	3	NR	960	0	NR
445	566	NR	575	938	NR	705	112	NR	835	3	NR	965	0	NR
450	810	NR	580	965	NR	710	96	NR	840	2	NR	970	0	NR
455	669	NR	585	986	NR	715	81	NR	845	2	NR	975	0	NR
460	338	NR	590	997	NR	720	69	NR	850	2	NR	980	0	NR
465	246	NR	595	997	NR	725	58	NR	855	1	NR	985	0	NR
470	182	NR	600	991	NR	730	49	NR	860	1	NR	990	0	NR
475	115	NR	605	968	NR	735	42	NR	865	1	NR	995	0	NR
480	97	NR	610	939	NR	740	37	NR	870	1	NR	1000	0	NR
485	103	NR	615	896	NR	745	32	NR	875	1	NR			

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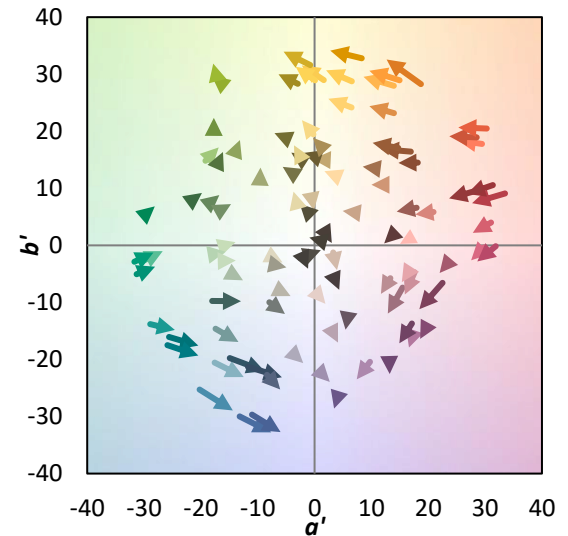
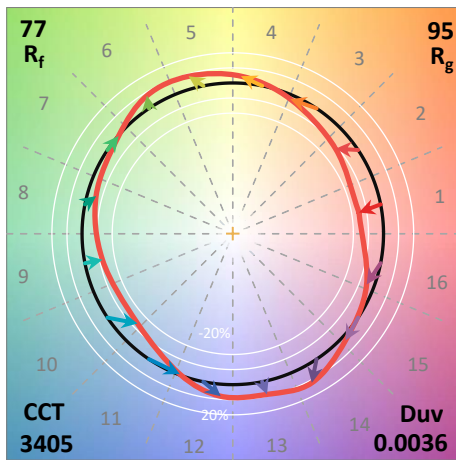
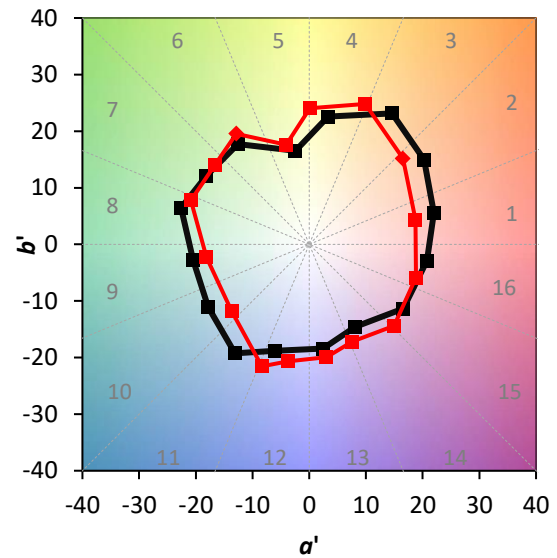
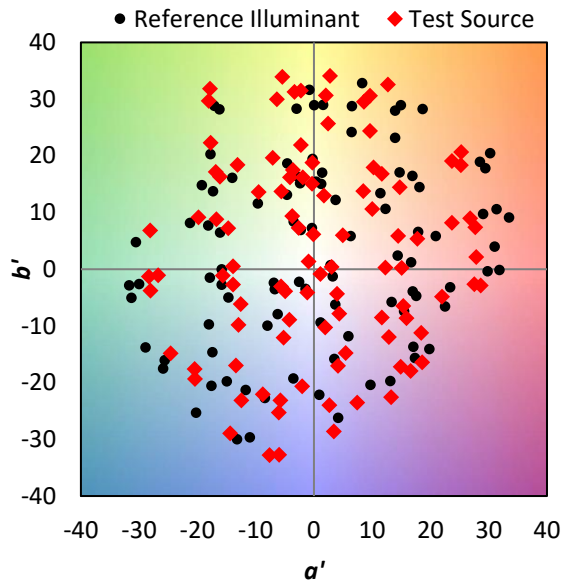
TM-30-18

Summary

$R_f = 76.6$
 $R_g = 95.4$
 $CIE R_a = 73.9$
 $R_g = -18.0$

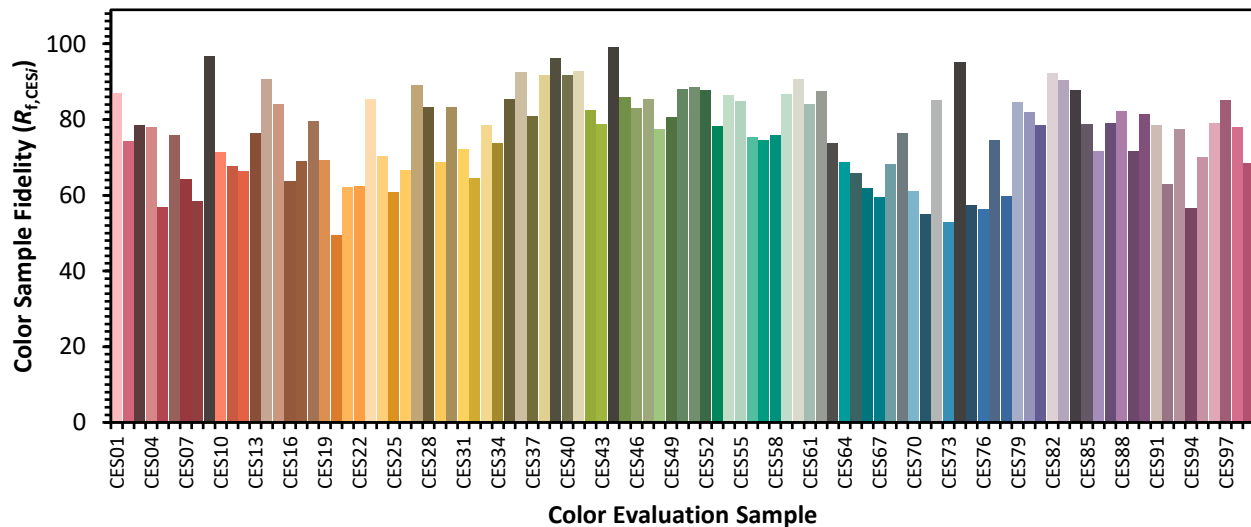


Color Vector Graphics

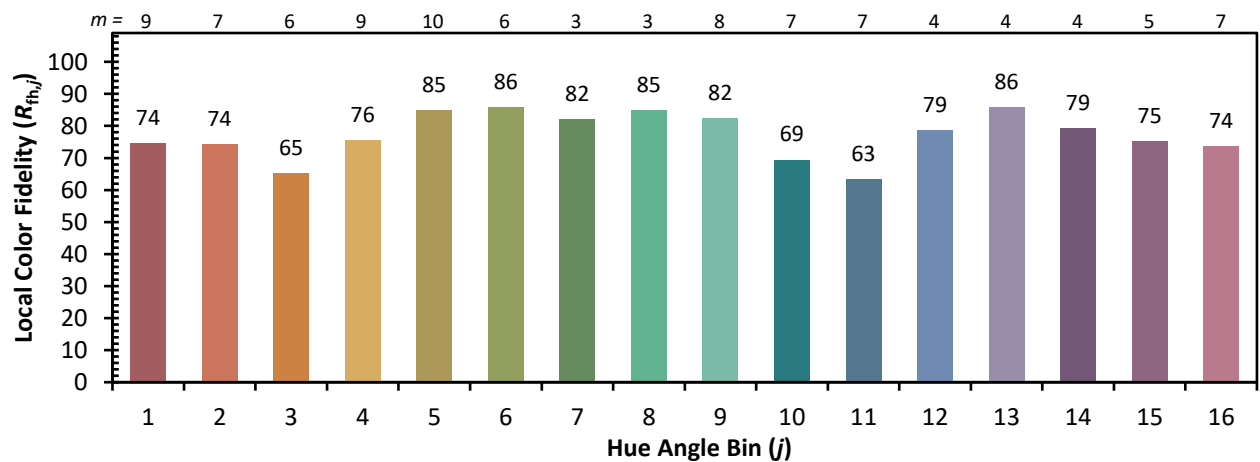
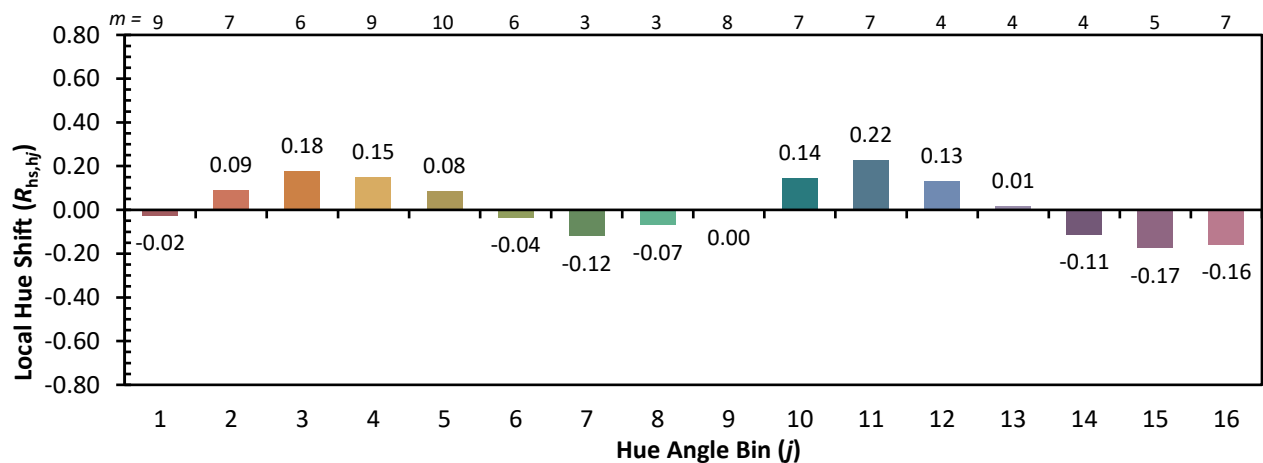
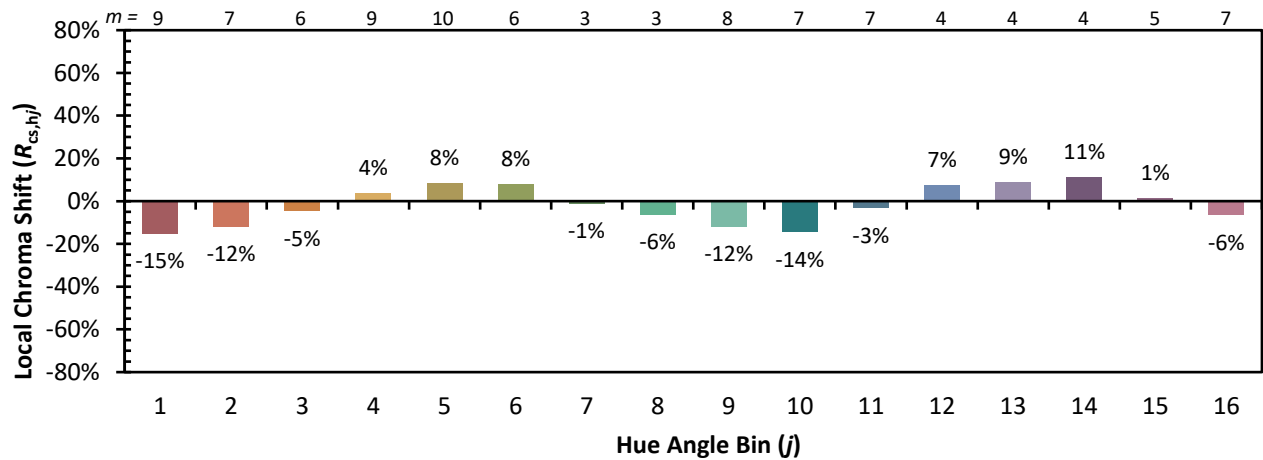


Individual Sample Fidelity Index ($R_{f,i}$)

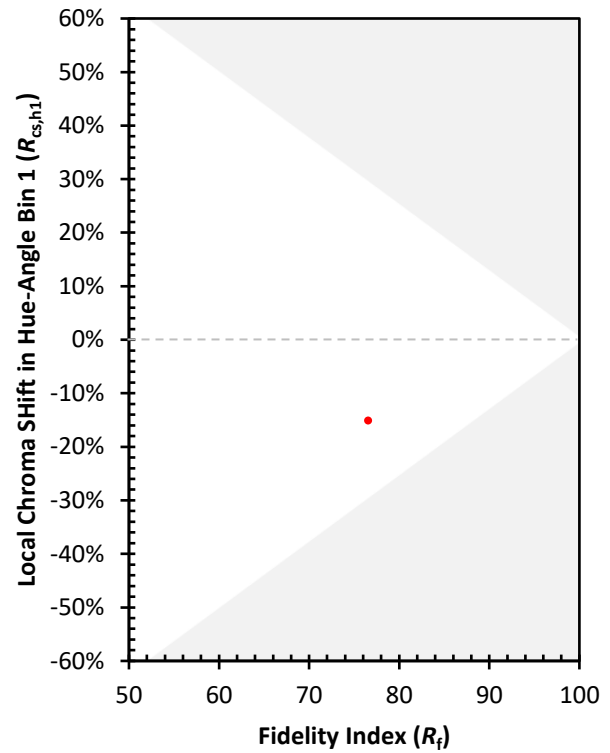
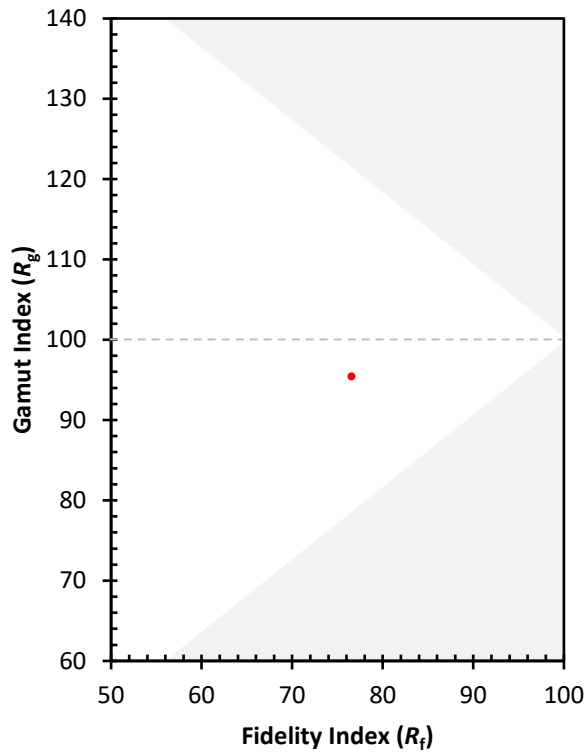
CES01 = 86	CES26 = 67	CES51 = 88	CES76 = 56
CES02 = 62	CES27 = 89	CES52 = 88	CES77 = 75
CES03 = 31	CES28 = 83	CES53 = 78	CES78 = 60
CES04 = 70	CES29 = 69	CES54 = 86	CES79 = 85
CES05 = 48	CES30 = 83	CES55 = 85	CES80 = 82
CES06 = 51	CES31 = 72	CES56 = 75	CES81 = 78
CES07 = 41	CES32 = 65	CES57 = 75	CES82 = 92
CES08 = 40	CES33 = 78	CES58 = 76	CES83 = 90
CES09 = 29	CES34 = 74	CES59 = 87	CES84 = 88
CES10 = 75	CES35 = 86	CES60 = 91	CES85 = 79
CES11 = 58	CES36 = 93	CES61 = 84	CES86 = 72
CES12 = 64	CES37 = 81	CES62 = 88	CES87 = 79
CES13 = 43	CES38 = 92	CES63 = 74	CES88 = 82
CES14 = 74	CES39 = 96	CES64 = 69	CES89 = 72
CES15 = 71	CES40 = 92	CES65 = 66	CES90 = 82
CES16 = 47	CES41 = 93	CES66 = 62	CES91 = 79
CES17 = 50	CES42 = 83	CES67 = 60	CES92 = 63
CES18 = 56	CES43 = 79	CES68 = 68	CES93 = 77
CES19 = 72	CES44 = 99	CES69 = 76	CES94 = 56
CES20 = 65	CES45 = 86	CES70 = 61	CES95 = 70
CES21 = 86	CES46 = 83	CES71 = 55	CES96 = 79
CES22 = 79	CES47 = 85	CES72 = 85	CES97 = 85
CES23 = 92	CES48 = 78	CES73 = 53	CES98 = 78
CES24 = 91	CES49 = 81	CES74 = 95	CES99 = 68
CES25 = 72	CES50 = 88	CES75 = 57	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)