

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: P1445231

Luminaire Tested: TPTN-VA2-740-U-DL-GM

Issue Date: 05/21/2026

Test Information

Test Method: LM-79-2024
Report Number: P1445231
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/21/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: MCGRAW-EDISON
Catalog Number: TPTN-VA2-740-U-DL-GM
Description: TOPTIER NANO SPIDER MOUNT VISUAL COMFORT LED LUMINAIRE 42W 70CRI 4000K w/
DRIVE LANE TYPE IV DISTRIBUTION OPTIC
Light Source: 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3764.4 lumens
Efficiency: N/A
Efficacy: 89.4 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

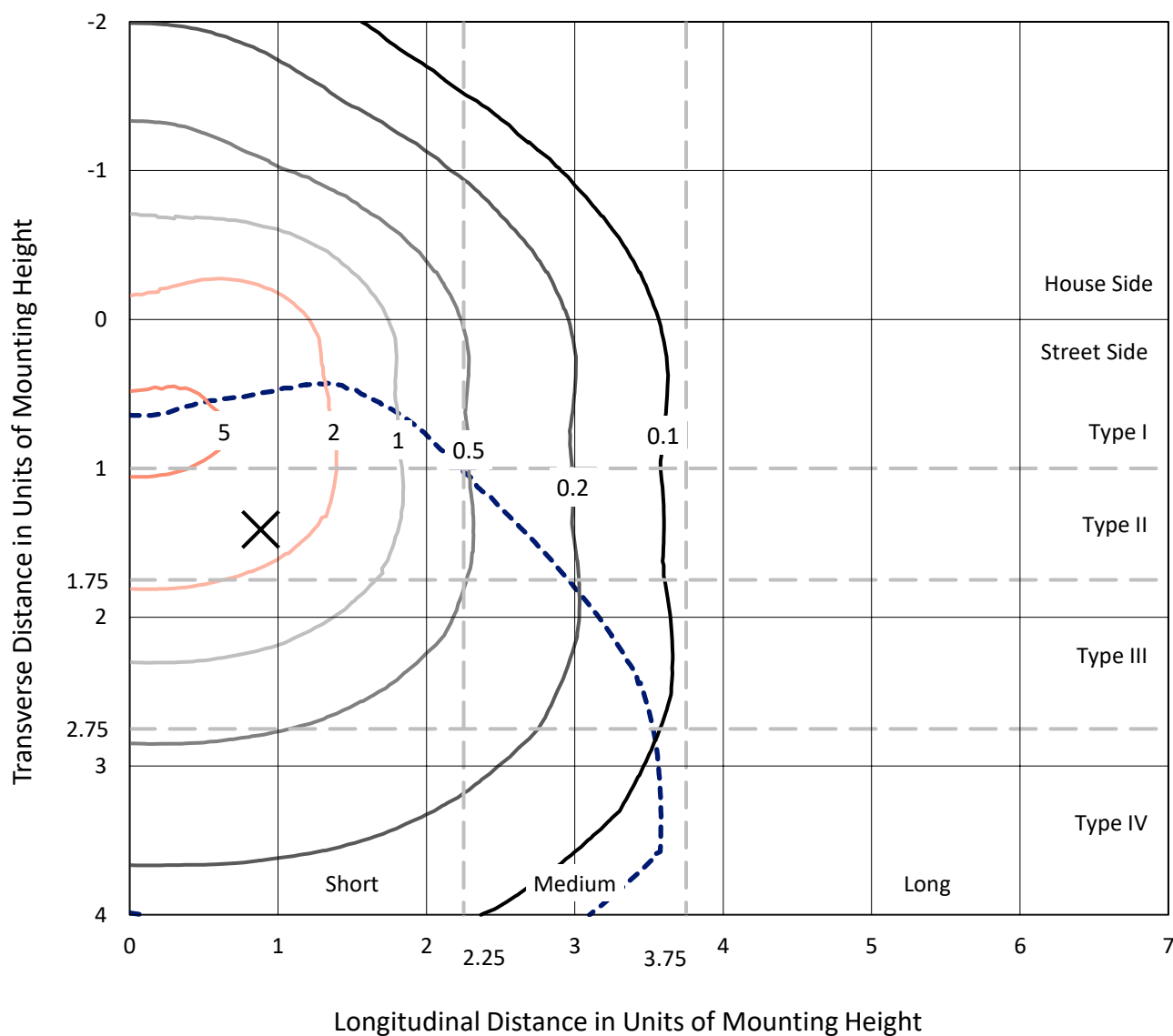
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CATALOG NUMBER: TPTN-VA2-740-U-DL-GM

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



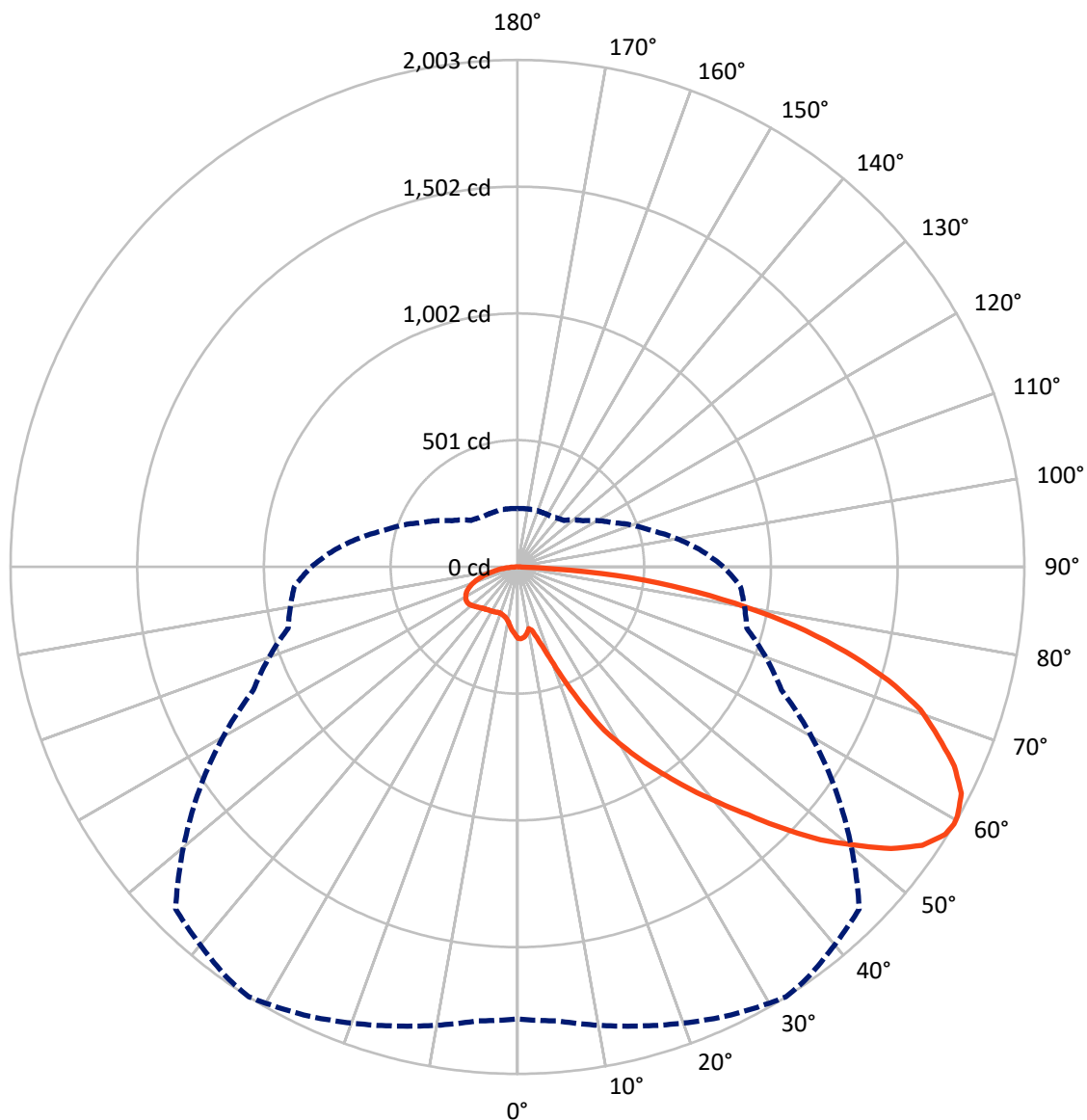
Based on 10 foot mounting height. Maximum calculated value = 6 fc

Type IV - Short - N/A

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CATALOG NUMBER: TPTN-VA2-740-U-DL-GM

Luminous Intensity Polar Plot



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

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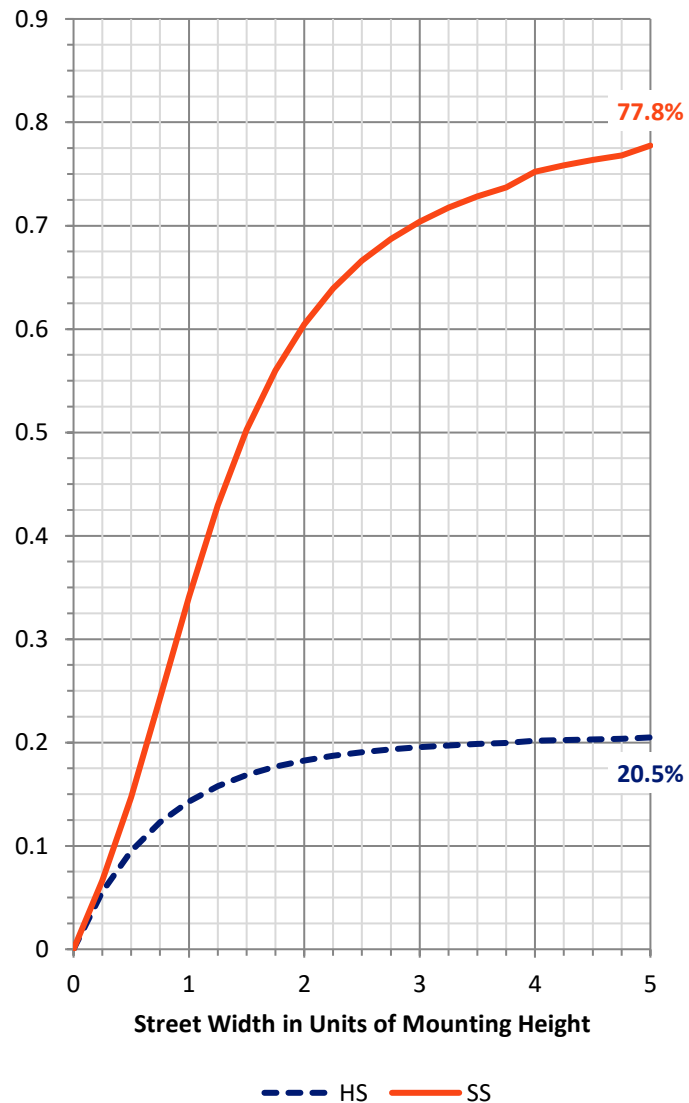
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	782.8	0.0	782.8
	% Fixture	20.8	0.0	20.8
Street Side	Lumens	2981.6	0.0	2981.6
	% Fixture	79.2	0.0	79.2
Total	Lumens	3764.4	0.0	3764.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.6	0.7
10°-20°	74.3	2.0
20°-30°	182.4	4.8
30°-40°	358.1	9.5
40°-50°	595.5	15.8
50°-60°	840.9	22.3
60°-70°	883.1	23.5
70°-80°	636.9	16.9
80°-90°	168.5	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°	3764.4	100.0
0°-180°	3764.4	100.0

Coefficient of Utilization



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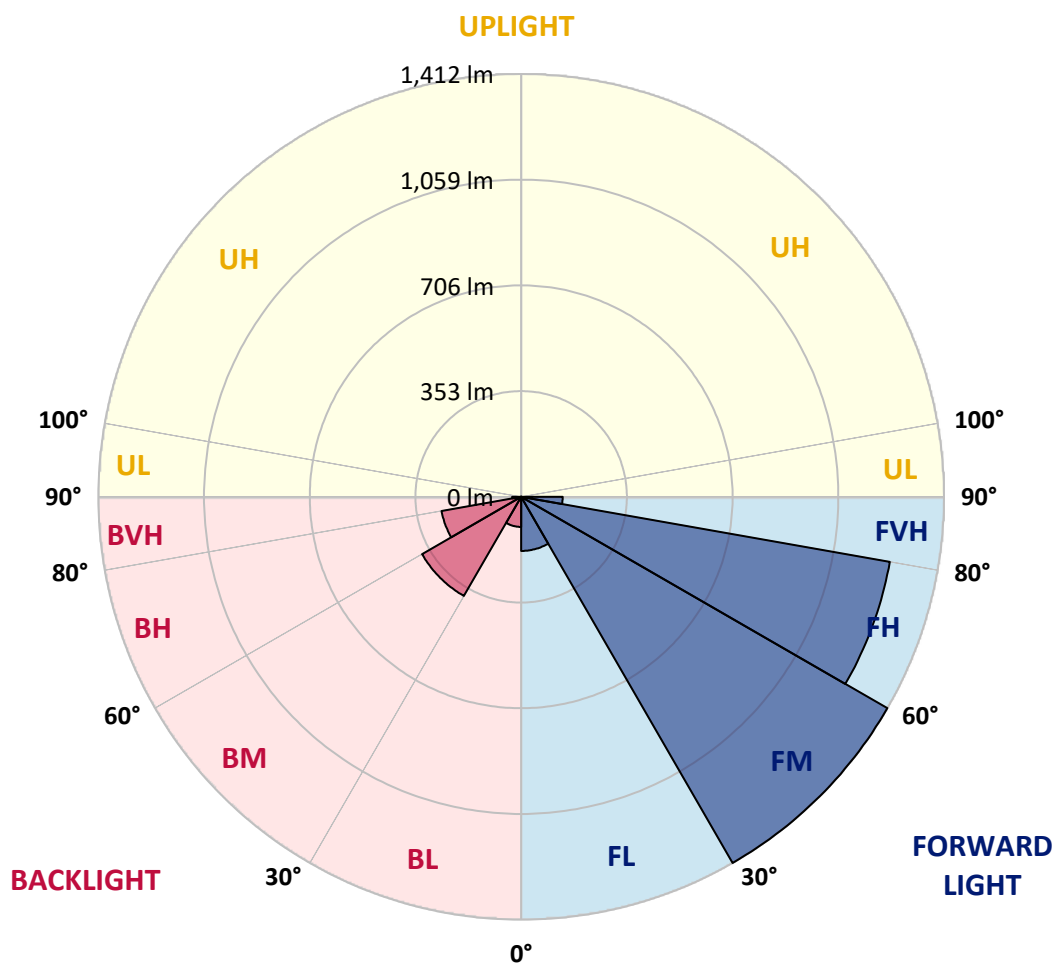
CATALOG NUMBER: TPTN-VA2-740-U-DL-GM

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	180.7	4.8			
FM	(30°-60°)	1412.1	37.5			
FH	(60°-80°)	1250.1	33.2			G1/1800
FVH	(80°-90°)	138.6	3.7			G2/225
BL	(0°-30°)	100.6	2.7	B0/110		
BM	(30°-60°)	382.3	10.2	B1/1000		
BH	(60°-80°)	269.9	7.2	B1/500		G1/500
BVH	(80°-90°)	29.9	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: P1445231

CATALOG NUMBER: TPTN-VA2-740-U-DL-GM

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	282.1	282.1	282.1	282.1	282.1	282.1	282.1	282.1	282.1	282.1	282.1
2.5°	286.5	285.7	285.7	285.0	284.3	284.3	283.6	282.1	279.9	277.7	276.3
5°	283.6	282.8	281.4	280.6	279.2	278.5	277.0	274.1	272.7	273.4	273.4
7.5°	271.2	271.9	270.5	268.3	266.1	265.4	261.7	261.0	260.3	258.1	259.6
10°	269.0	269.7	263.2	255.9	247.9	245.0	242.1	242.8	247.2	250.1	253.0
12.5°	287.2	284.3	278.5	268.3	258.1	255.2	247.2	247.2	250.8	253.7	256.7
15°	314.8	314.1	307.5	299.6	290.8	287.2	272.7	266.1	266.8	269.0	271.2
17.5°	355.5	357.7	359.9	349.7	339.5	332.3	311.2	296.6	290.8	291.6	291.6
20°	428.2	429.0	434.1	425.3	409.3	399.2	365.7	338.8	325.7	322.8	321.4
22.5°	532.2	529.3	529.3	527.1	506.0	493.7	440.6	392.6	369.4	361.4	360.6
25°	652.9	651.5	654.4	643.5	615.8	607.1	533.7	463.1	421.7	410.1	401.3
27.5°	770.7	772.1	773.6	754.0	730.7	715.4	630.4	546.8	479.9	458.8	442.8
30°	881.9	885.6	866.7	839.0	822.3	803.4	711.1	612.9	534.4	498.0	482.8
32.5°	991.7	988.1	953.9	932.8	919.0	900.1	792.5	683.4	589.7	538.8	518.4
35°	1098.6	1088.4	1045.5	1025.2	1013.5	997.5	890.7	756.2	643.5	579.5	554.8
37.5°	1198.2	1192.4	1143.0	1132.8	1117.5	1105.1	996.8	832.5	701.6	627.5	596.9
40°	1291.3	1292.0	1256.4	1239.7	1224.4	1212.7	1105.1	912.5	762.0	676.9	643.5
42.5°	1388.0	1387.2	1366.9	1356.0	1340.0	1331.3	1218.6	1001.2	825.2	729.2	690.0
45°	1478.9	1485.4	1486.9	1480.3	1473.8	1465.8	1357.4	1103.7	900.1	782.3	740.9
47.5°	1585.7	1593.7	1605.4	1607.5	1611.2	1598.1	1492.7	1200.4	972.8	834.7	788.9
50°	1665.0	1673.0	1710.1	1721.7	1728.2	1722.4	1620.6	1305.1	1038.3	884.1	825.9
52.5°	1743.5	1747.9	1800.2	1840.9	1848.9	1839.5	1746.4	1404.7	1102.2	923.4	863.8
55°	1790.0	1796.6	1864.2	1924.5	1941.3	1937.6	1855.5	1474.5	1141.5	951.0	887.7
57.5°	1794.4	1806.0	1883.8	1956.5	1993.6	1984.2	1905.6	1521.0	1153.1	948.1	888.5
59°	1786.4	1800.2	1878.0	1958.0	2003.1	1989.3	1910.7	1534.8	1150.9	937.9	884.8
60°	1779.9	1793.7	1867.8	1952.9	1998.0	1986.3	1910.0	1541.4	1141.5	932.1	881.9
62.5°	1740.6	1764.6	1838.0	1913.6	1968.9	1975.4	1895.5	1544.3	1121.9	913.2	866.7
65°	1648.3	1671.5	1768.2	1860.6	1896.9	1919.5	1841.7	1506.5	1076.8	874.7	816.5
67.5°	1532.7	1552.3	1646.8	1768.2	1793.7	1814.0	1766.8	1431.6	1019.3	799.8	754.7
70°	1414.1	1438.1	1514.5	1641.7	1689.7	1704.2	1670.1	1350.2	937.2	724.9	694.3
72.5°	1254.9	1274.5	1365.4	1483.2	1533.4	1551.6	1523.9	1241.8	833.2	649.3	620.9
75°	1077.5	1089.1	1174.2	1293.5	1341.4	1359.6	1350.9	1103.7	721.3	554.8	525.7
77.5°	863.0	889.2	959.7	1055.0	1123.3	1127.0	1126.2	935.7	593.3	437.0	426.8
80°	644.2	667.4	734.3	824.5	871.8	884.8	883.4	738.0	460.2	334.5	317.7
82.5°	407.9	422.4	492.2	564.9	614.4	626.0	639.1	532.9	320.6	221.8	202.9
85°	162.1	161.4	221.8	299.6	335.9	355.5	365.0	310.5	173.8	98.9	83.6
87.5°	11.6	12.4	15.3	18.9	19.6	21.1	24.0	30.5	24.0	21.1	10.9
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: P1445231

CATALOG NUMBER: TPTN-VA2-740-U-DL-GM

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	282.1	282.1	282.1	282.1	282.1	282.1	282.1	282.1	282.1	282.1	282.1
2.5°	275.6	274.8	271.9	270.5	268.3	267.6	266.8	265.4	264.7	263.9	264.7
5°	271.2	271.2	268.3	266.1	261.0	257.4	253.7	248.7	245.0	242.8	242.1
7.5°	261.0	261.7	261.0	256.7	252.3	246.5	237.8	229.0	222.5	218.8	217.4
10°	252.3	253.7	253.0	250.1	242.8	233.4	222.5	210.8	200.7	194.1	193.4
12.5°	256.7	256.7	254.5	248.7	239.2	226.8	213.0	197.8	186.1	178.9	177.4
15°	271.2	269.7	263.2	253.7	239.2	223.9	207.2	189.8	176.0	168.0	167.2
17.5°	292.3	289.4	277.7	260.3	241.4	222.5	204.3	184.7	168.0	157.8	156.3
20°	319.9	313.4	295.2	269.0	245.7	223.9	201.4	179.6	162.9	151.2	148.3
22.5°	354.1	343.2	314.8	279.9	251.6	226.8	202.1	178.1	160.0	149.0	148.3
25°	389.7	375.2	337.4	293.0	258.1	229.0	202.9	181.0	162.9	154.9	153.4
27.5°	426.1	408.6	361.4	308.3	265.4	232.7	205.8	185.4	171.6	165.0	164.3
30°	461.7	438.4	382.4	321.4	272.7	234.8	207.9	185.4	176.0	170.9	170.1
32.5°	494.4	466.1	402.1	335.2	279.9	239.2	210.1	187.6	178.9	177.4	176.7
35°	529.3	498.8	422.4	346.8	287.2	242.8	212.3	189.8	183.2	183.2	183.2
37.5°	567.1	531.5	444.2	359.9	294.5	249.4	215.2	194.9	189.0	190.5	190.5
40°	607.1	566.4	466.8	373.7	301.0	253.0	217.4	199.9	194.9	196.3	197.0
42.5°	648.5	600.6	490.0	386.1	309.7	257.4	221.8	206.5	202.9	204.3	204.3
45°	690.7	636.9	511.9	399.2	317.0	261.7	226.8	213.8	210.8	211.6	211.6
47.5°	732.2	669.6	531.5	410.8	323.5	265.4	231.9	221.0	218.8	219.6	218.8
50°	767.1	698.0	548.9	419.5	330.1	269.0	237.8	228.3	226.8	225.4	224.7
52.5°	797.6	723.4	562.8	426.1	333.0	270.5	242.8	235.6	234.1	231.2	230.5
55°	814.3	735.1	566.4	427.5	330.8	269.0	244.3	239.2	237.8	234.1	234.1
57.5°	818.0	735.1	558.4	421.0	323.5	263.9	243.6	237.8	236.3	232.7	232.7
59°	814.3	730.7	551.1	413.7	317.7	259.6	240.7	236.3	234.1	231.2	231.2
60°	810.7	727.8	546.0	406.4	314.1	256.7	237.8	234.1	231.9	229.8	229.8
62.5°	794.7	711.1	532.2	387.5	301.7	245.7	231.2	229.0	227.6	225.4	224.7
65°	750.3	671.1	503.1	366.4	282.8	232.7	220.3	219.6	218.8	215.2	213.8
67.5°	698.0	621.6	461.0	339.5	258.8	217.4	207.2	207.2	204.3	201.4	202.1
70°	644.2	574.4	417.3	306.1	231.2	197.8	189.8	190.5	187.6	186.9	187.6
72.5°	572.9	507.5	369.4	265.4	202.9	175.2	168.7	170.9	170.1	169.4	169.4
75°	482.8	430.4	311.2	223.9	171.6	150.5	146.9	147.6	148.3	147.6	147.6
77.5°	393.3	349.7	246.5	176.7	136.0	121.4	120.7	124.3	125.1	124.3	125.1
80°	291.6	257.4	179.6	129.4	101.1	93.1	94.5	99.6	101.1	101.1	102.5
82.5°	187.6	161.4	116.3	83.6	67.6	65.4	69.8	74.9	77.1	77.1	77.1
85°	74.2	66.9	53.8	41.4	38.5	41.4	46.5	49.4	53.1	53.1	52.3
87.5°	4.4	10.9	16.7	16.7	16.7	18.2	18.2	18.9	19.6	18.9	18.9
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: SP1-2411-284-2

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

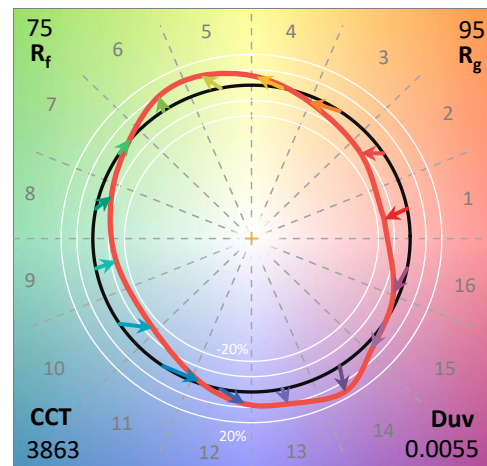
Test Information

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

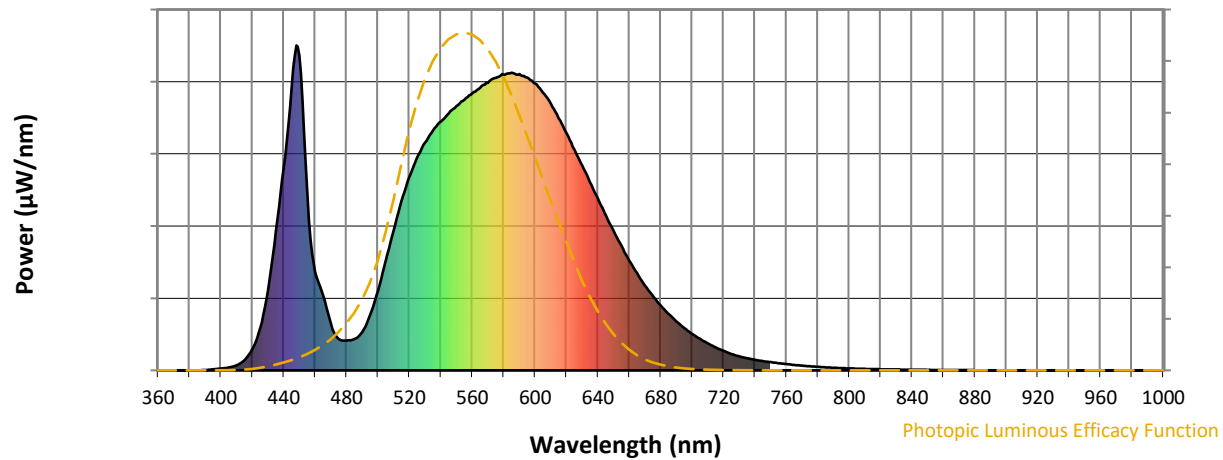
Stabilization Time: 37M
 Operation Time: 1H 37M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2411-284-2

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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Photopic Flux vs. Wavelength

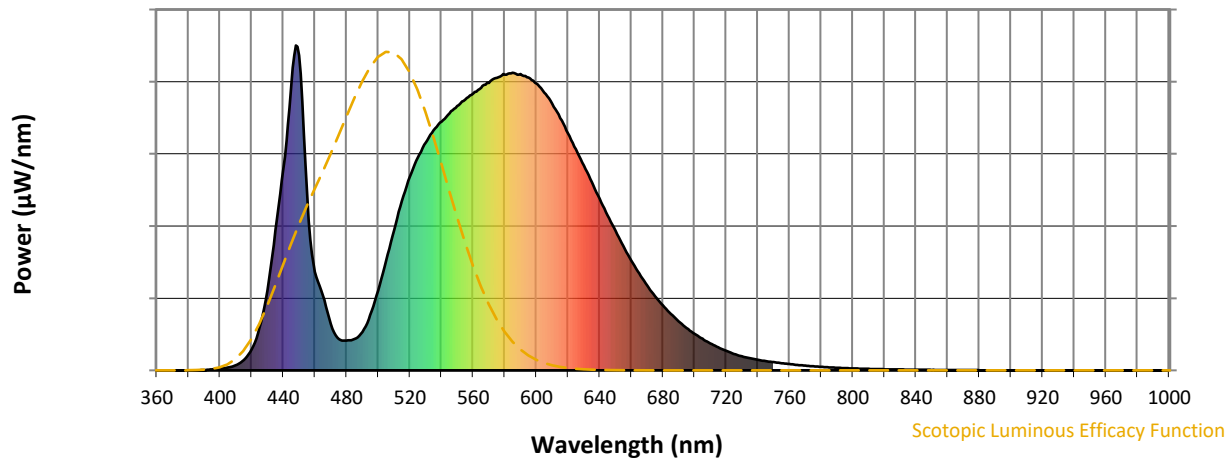


Photopic Lumens: NR

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	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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Scotopic Flux vs. Wavelength



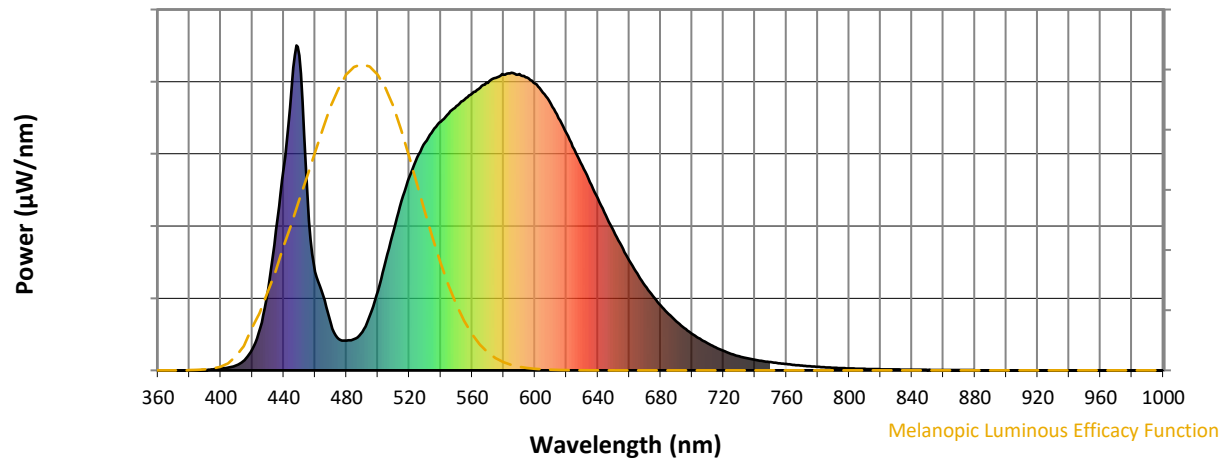
Scotopic Lumens: NR

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

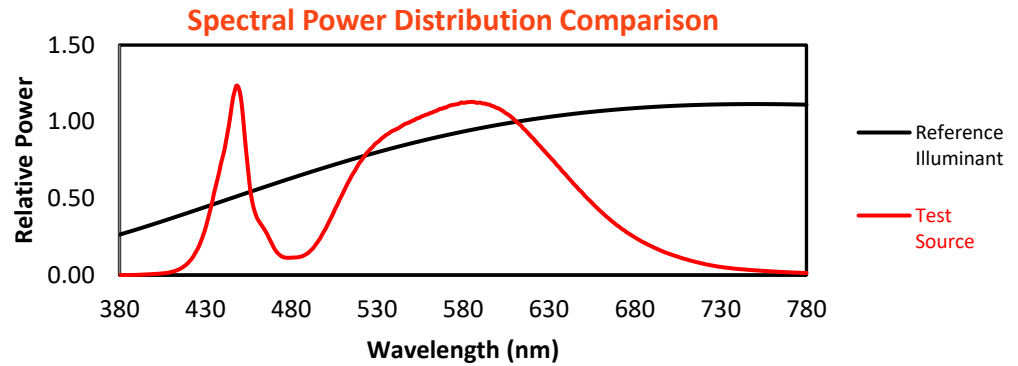
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	118	NR	620	730	NR	750	25	NR	880	1	NR
365	0	NR	495	170	NR	625	680	NR	755	22	NR	885	0	NR
370	0	NR	500	245	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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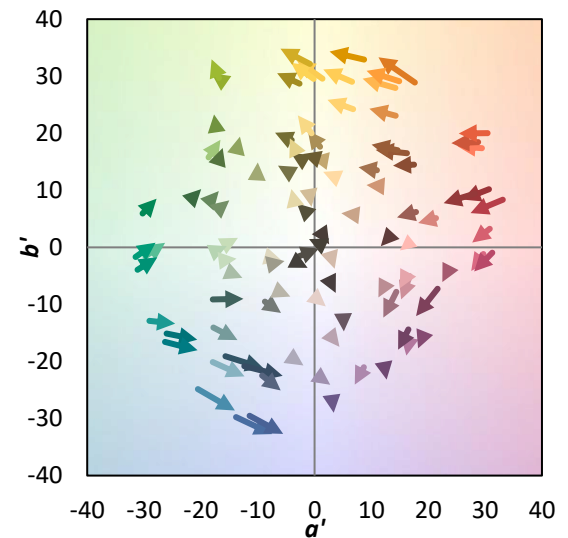
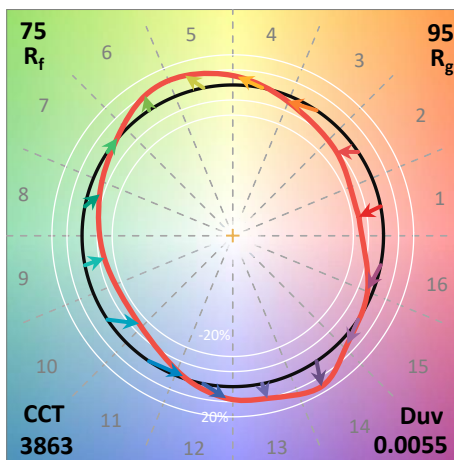
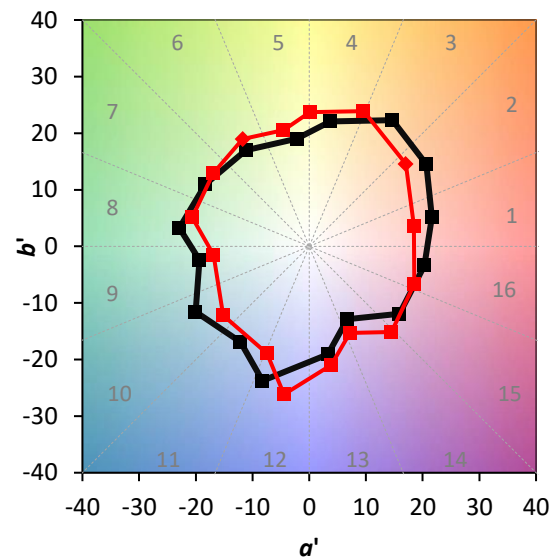
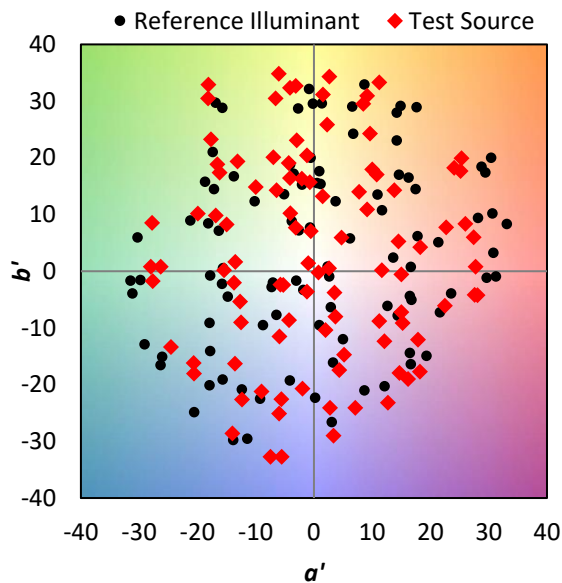
TM-30-18

Summary

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

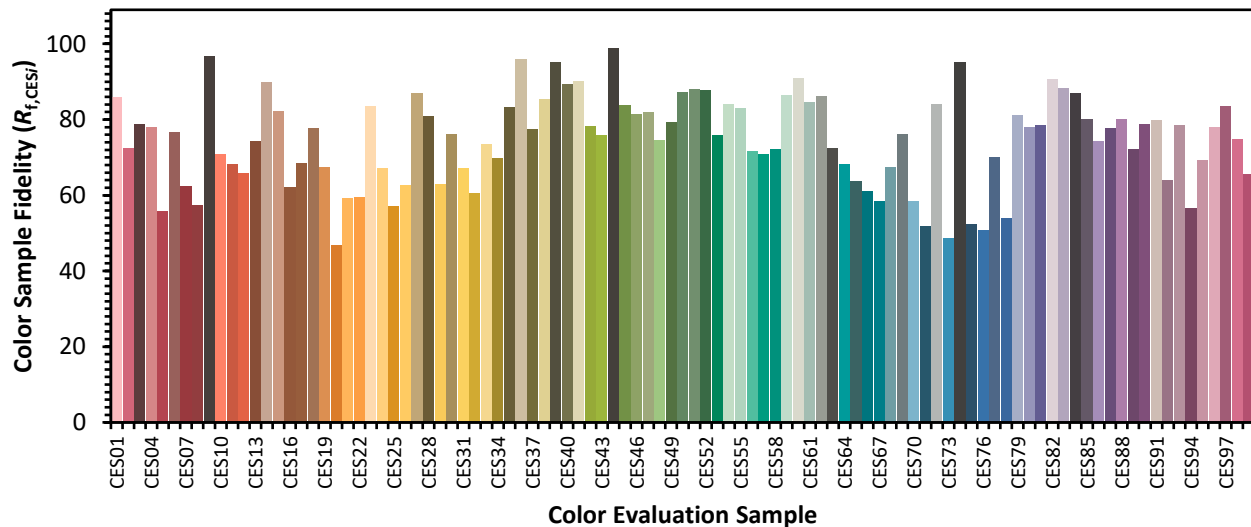


Color Vector Graphics

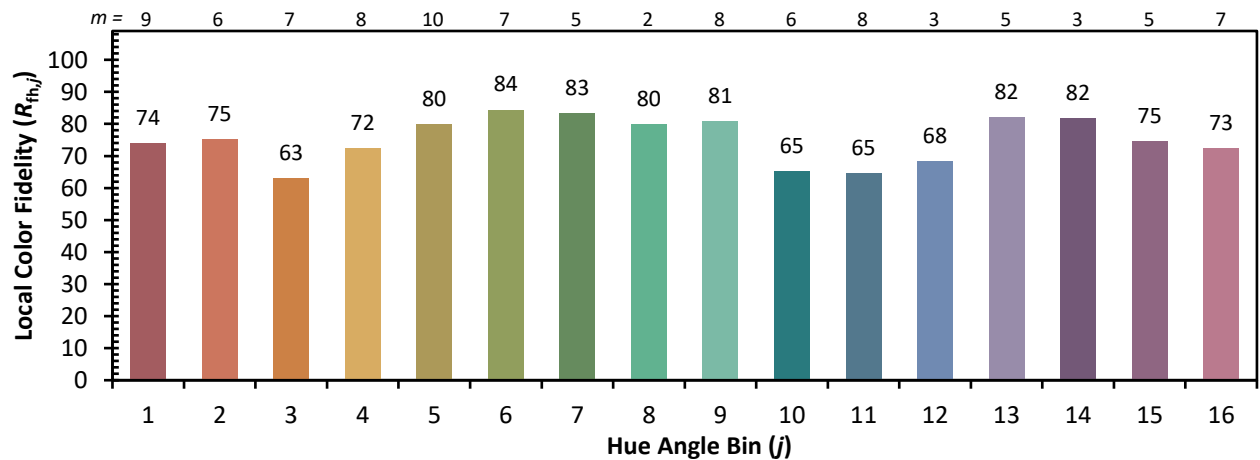
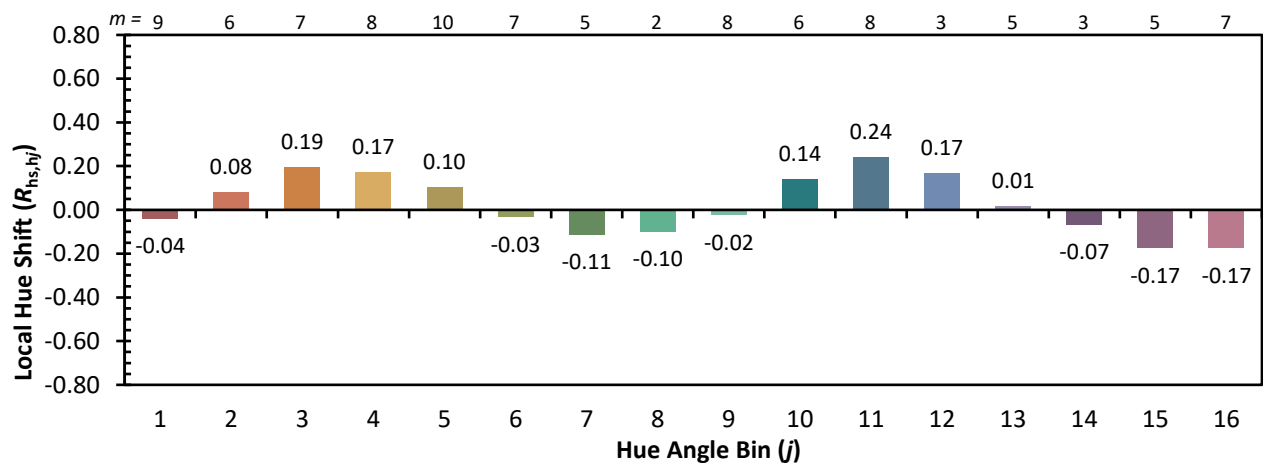
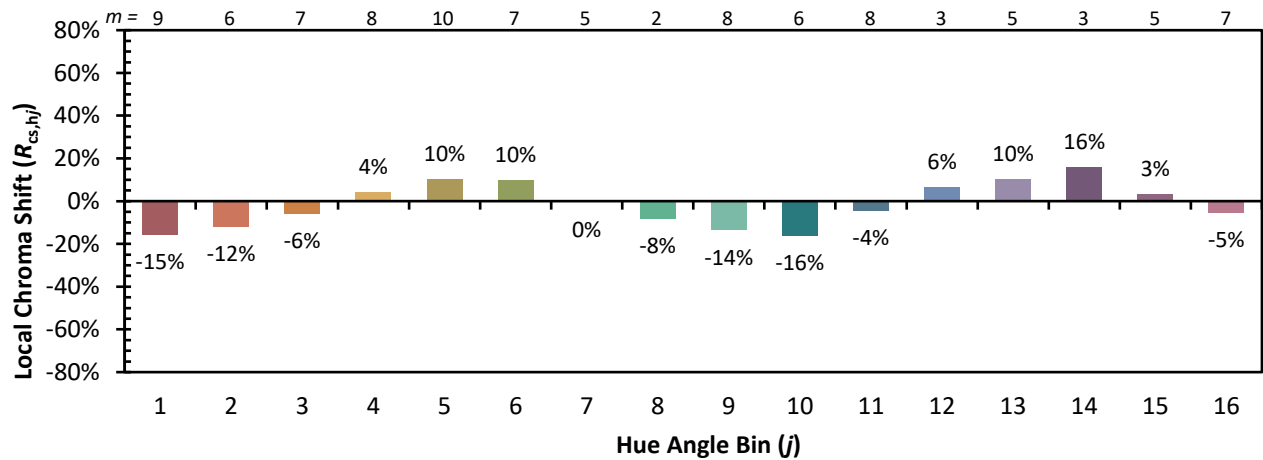


Individual Sample Fidelity Index ($R_{f,i}$)

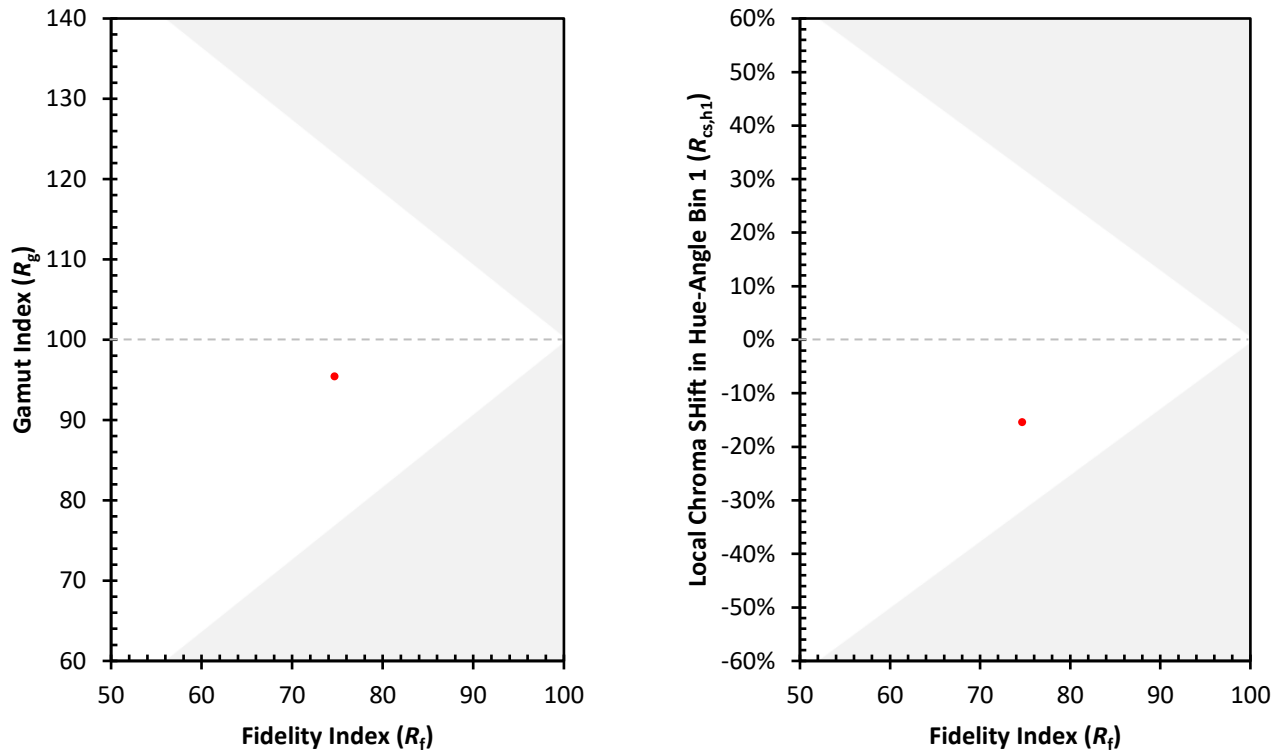
CES01 = 85	CES26 = 63	CES51 = 88	CES76 = 51
CES02 = 61	CES27 = 87	CES52 = 88	CES77 = 70
CES03 = 30	CES28 = 81	CES53 = 76	CES78 = 54
CES04 = 70	CES29 = 63	CES54 = 84	CES79 = 81
CES05 = 47	CES30 = 76	CES55 = 83	CES80 = 78
CES06 = 50	CES31 = 67	CES56 = 72	CES81 = 79
CES07 = 40	CES32 = 61	CES57 = 71	CES82 = 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)