

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: P1445230

Luminaire Tested: TPTN-VA1-740-U-DL-GM

Issue Date: 05/21/2026

Test Information

Test Method: LM-79-2024
Report Number: P1445230
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/21/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: MCGRAW-EDISON
Catalog Number: TPTN-VA1-740-U-DL-GM
Description: TOPTIER NANO SPIDER MOUNT VISUAL COMFORT LED LUMINAIRE 27W 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: 2362.5 lumens
Efficiency: N/A
Efficacy: 88.5 lumens/watt
Luminous Opening: Circular (Dia: 0.71' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

Input Watts (W): 26.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.98
Total Harmonic Distortion (THDi): 11.9%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

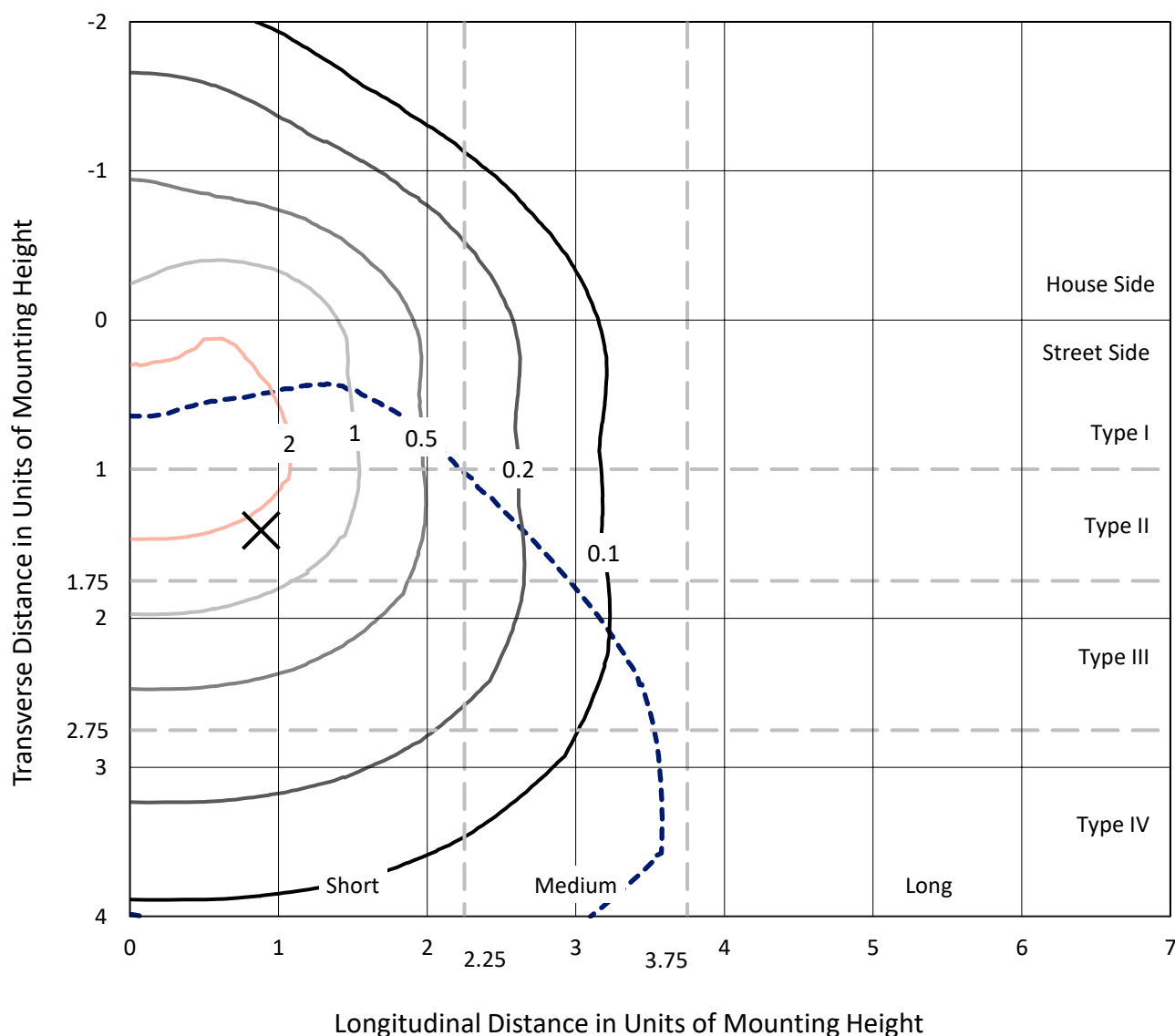
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CATALOG NUMBER: TPTN-VA1-740-U-DL-GM

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



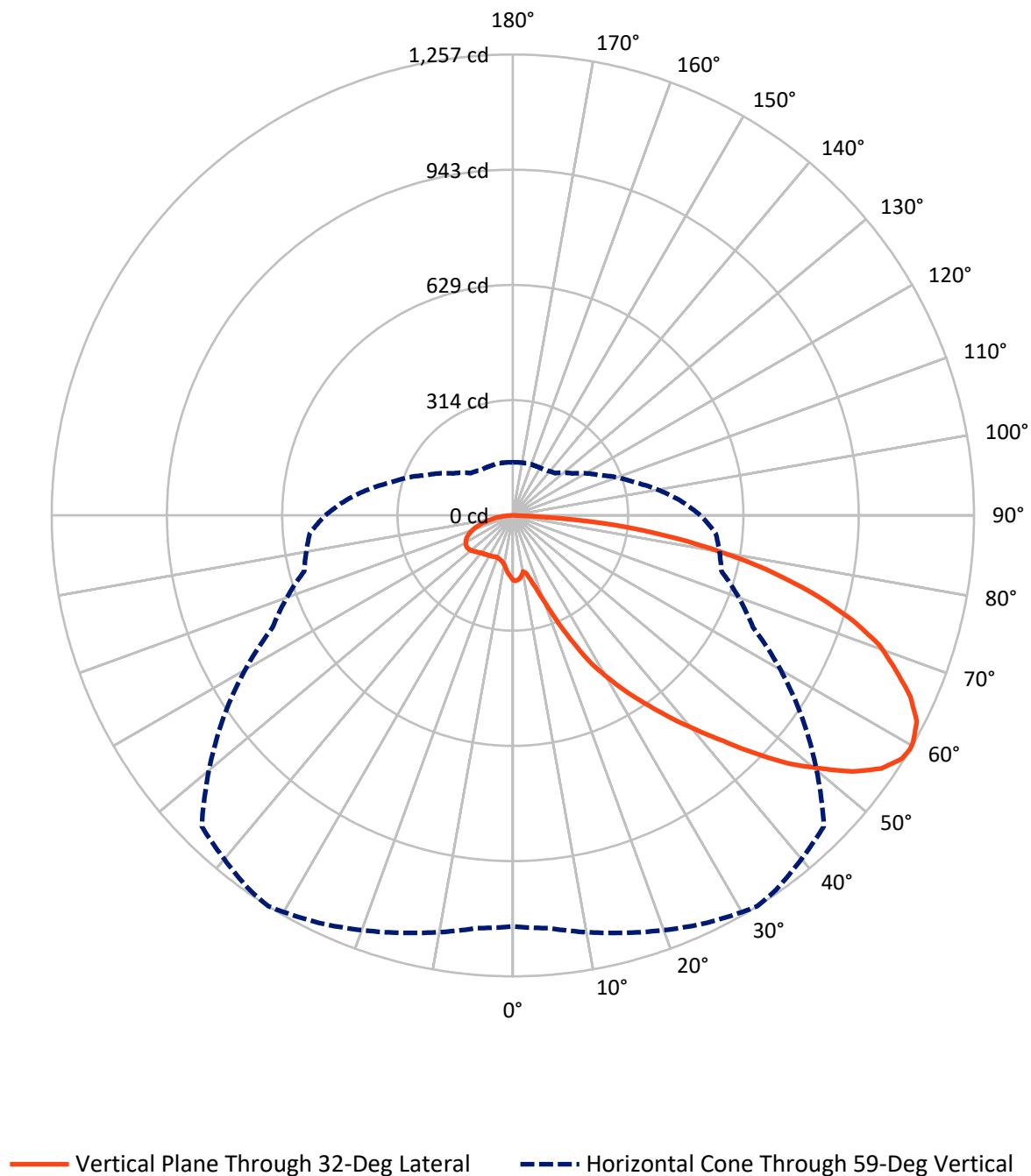
Based on 10 foot mounting height. Maximum calculated value = 3.8 fc

Type IV - Short - N/A

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CATALOG NUMBER: TPTN-VA1-740-U-DL-GM

Luminous Intensity Polar Plot



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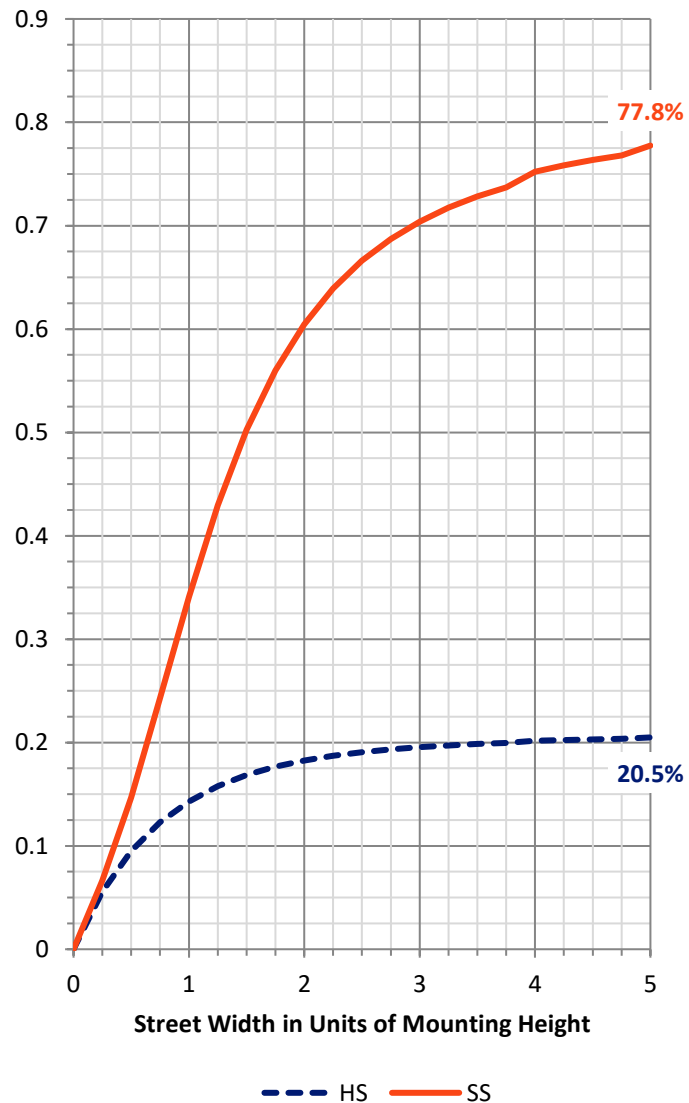
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	491.2	0.0	491.2
	% Fixture	20.8	0.0	20.8
Street Side	Lumens	1871.2	0.0	1871.2
	% Fixture	79.2	0.0	79.2
Total	Lumens	2362.5	0.0	2362.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.4	0.7
10°-20°	46.6	2.0
20°-30°	114.5	4.8
30°-40°	224.7	9.5
40°-50°	373.7	15.8
50°-60°	527.7	22.3
60°-70°	554.2	23.5
70°-80°	399.7	16.9
80°-90°	105.8	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°	2362.5	100.0
0°-180°	2362.5	100.0

Coefficient of Utilization



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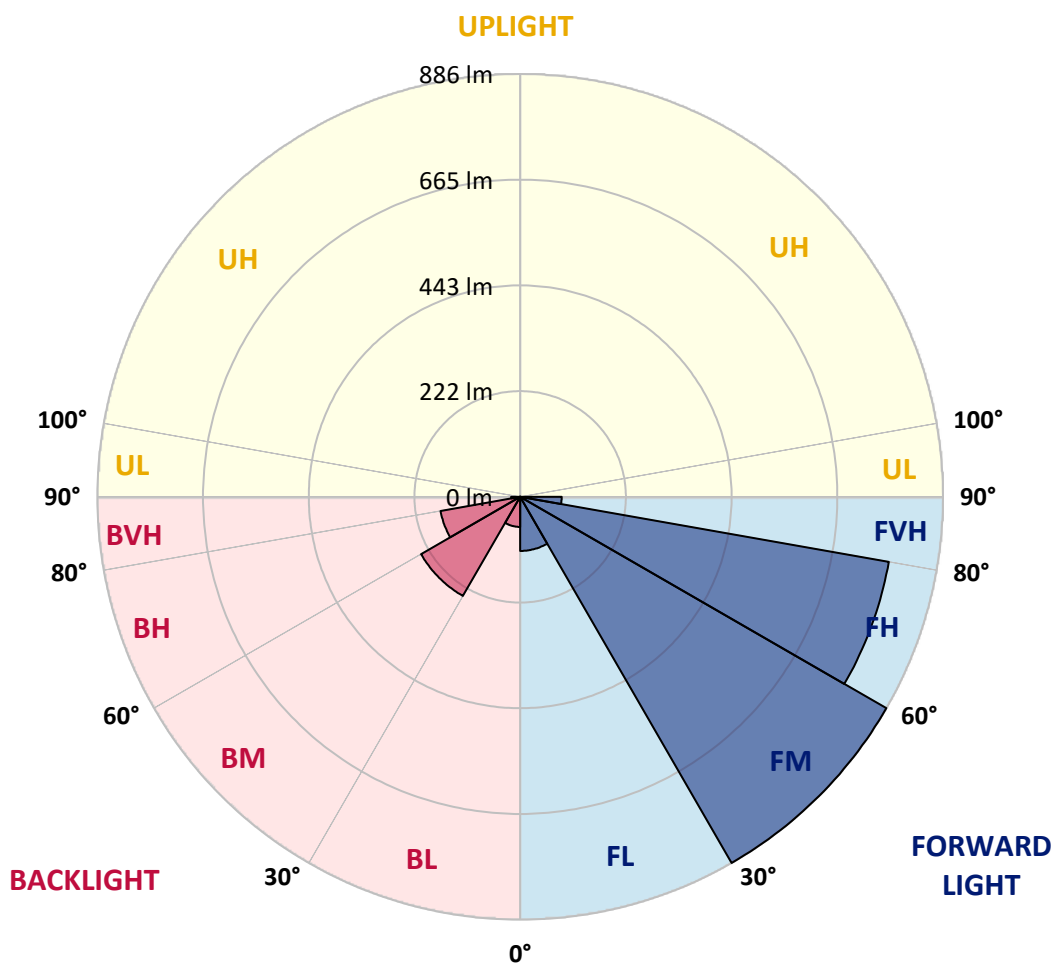
CATALOG NUMBER: TPTN-VA1-740-U-DL-GM

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	113.4	4.8			
FM	(30°-60°)	886.3	37.5			
FH	(60°-80°)	784.6	33.2			G1/1800
FVH	(80°-90°)	87.0	3.7			G1/100
BL	(0°-30°)	63.1	2.7	B0/110		
BM	(30°-60°)	239.9	10.2	B1/1000		
BH	(60°-80°)	169.4	7.2	B1/500		G1/500
BVH	(80°-90°)	18.8	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-G1

Type IV Short



REPORT NUMBER: P1445230

CATALOG NUMBER: TPTN-VA1-740-U-DL-GM

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0
2.5°	179.8	179.3	179.3	178.9	178.4	178.4	178.0	177.0	175.7	174.3	173.4
5°	178.0	177.5	176.6	176.1	175.2	174.8	173.9	172.0	171.1	171.6	171.6
7.5°	170.2	170.7	169.7	168.4	167.0	166.6	164.3	163.8	163.4	162.0	162.9
10°	168.8	169.3	165.2	160.6	155.6	153.8	151.9	152.4	155.1	157.0	158.8
12.5°	180.2	178.4	174.8	168.4	162.0	160.2	155.1	155.1	157.4	159.3	161.1
15°	197.6	197.1	193.0	188.0	182.5	180.2	171.1	167.0	167.5	168.8	170.2
17.5°	223.1	224.5	225.9	219.5	213.1	208.5	195.3	186.2	182.5	183.0	183.0
20°	268.8	269.2	272.4	266.9	256.9	250.5	229.5	212.6	204.4	202.6	201.7
22.5°	334.0	332.2	332.2	330.8	317.6	309.8	276.5	246.4	231.8	226.8	226.3
25°	409.8	408.9	410.7	403.8	386.5	381.0	334.9	290.7	264.7	257.4	251.9
27.5°	483.7	484.6	485.5	473.2	458.6	449.0	395.6	343.1	301.2	287.9	277.9
30°	553.5	555.8	543.9	526.6	516.1	504.2	446.3	384.7	335.4	312.6	303.0
32.5°	622.4	620.1	598.7	585.4	576.8	564.9	497.4	428.9	370.1	338.1	325.3
35°	689.5	683.1	656.2	643.4	636.1	626.1	559.0	474.6	403.8	363.7	348.2
37.5°	752.0	748.3	717.3	710.9	701.3	693.6	625.6	522.5	440.3	393.8	374.6
40°	810.4	810.9	788.5	778.0	768.4	761.1	693.6	572.7	478.2	424.8	403.8
42.5°	871.1	870.6	857.9	851.0	841.0	835.5	764.8	628.3	517.9	457.7	433.0
45°	928.1	932.2	933.1	929.0	924.9	919.9	851.9	692.7	564.9	491.0	465.0
47.5°	995.2	1000.2	1007.5	1008.9	1011.2	1003.0	936.8	753.4	610.5	523.8	495.1
50°	1044.9	1050.0	1073.2	1080.5	1084.6	1081.0	1017.1	819.1	651.6	554.9	518.4
52.5°	1094.2	1097.0	1129.8	1155.4	1160.4	1154.5	1096.0	881.6	691.8	579.5	542.1
55°	1123.4	1127.5	1170.0	1207.8	1218.3	1216.1	1164.5	925.4	716.4	596.8	557.1
57.5°	1126.2	1133.5	1182.3	1227.9	1251.2	1245.3	1196.0	954.6	723.7	595.0	557.6
59°	1121.1	1129.8	1178.6	1228.8	1257.1	1248.5	1199.2	963.3	722.3	588.6	555.3
60°	1117.0	1125.7	1172.2	1225.6	1253.9	1246.6	1198.7	967.4	716.4	585.0	553.5
62.5°	1092.4	1107.5	1153.5	1201.0	1235.7	1239.8	1189.6	969.2	704.1	573.1	543.9
65°	1034.4	1049.0	1109.7	1167.7	1190.5	1204.6	1155.8	945.5	675.8	548.9	512.4
67.5°	961.9	974.2	1033.5	1109.7	1125.7	1138.5	1108.8	898.5	639.7	501.9	473.6
70°	887.5	902.6	950.5	1030.3	1060.5	1069.6	1048.1	847.4	588.2	454.9	435.8
72.5°	787.6	799.9	856.9	930.9	962.3	973.8	956.4	779.4	522.9	407.5	389.7
75°	676.2	683.5	736.9	811.8	841.9	853.3	847.8	692.7	452.7	348.2	329.9
77.5°	541.6	558.1	602.3	662.1	705.0	707.3	706.8	587.3	372.3	274.2	267.9
80°	404.3	418.9	460.9	517.5	547.1	555.3	554.4	463.2	288.8	209.9	199.4
82.5°	256.0	265.1	308.9	354.5	385.6	392.9	401.1	334.5	201.2	139.2	127.3
85°	101.8	101.3	139.2	188.0	210.8	223.1	229.1	194.8	109.1	62.1	52.5
87.5°	7.3	7.8	9.6	11.9	12.3	13.2	15.1	19.2	15.1	13.2	6.8
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: P1445230

CATALOG NUMBER: TPTN-VA1-740-U-DL-GM

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0
2.5°	172.9	172.5	170.7	169.7	168.4	167.9	167.5	166.6	166.1	165.6	166.1
5°	170.2	170.2	168.4	167.0	163.8	161.5	159.3	156.1	153.8	152.4	151.9
7.5°	163.8	164.3	163.8	161.1	158.3	154.7	149.2	143.7	139.6	137.3	136.4
10°	158.3	159.3	158.8	157.0	152.4	146.5	139.6	132.3	125.9	121.8	121.4
12.5°	161.1	161.1	159.7	156.1	150.1	142.4	133.7	124.1	116.8	112.3	111.3
15°	170.2	169.3	165.2	159.3	150.1	140.5	130.0	119.1	110.4	105.4	105.0
17.5°	183.4	181.6	174.3	163.4	151.5	139.6	128.2	115.9	105.4	99.0	98.1
20°	200.8	196.7	185.3	168.8	154.2	140.5	126.4	112.7	102.2	94.9	93.1
22.5°	222.2	215.4	197.6	175.7	157.9	142.4	126.9	111.8	100.4	93.5	93.1
25°	244.6	235.5	211.7	183.9	162.0	143.7	127.3	113.6	102.2	97.2	96.3
27.5°	267.4	256.4	226.8	193.5	166.6	146.0	129.1	116.4	107.7	103.6	103.1
30°	289.8	275.2	240.0	201.7	171.1	147.4	130.5	116.4	110.4	107.2	106.8
32.5°	310.3	292.5	252.3	210.4	175.7	150.1	131.9	117.7	112.3	111.3	110.9
35°	332.2	313.0	265.1	217.7	180.2	152.4	133.2	119.1	115.0	115.0	115.0
37.5°	355.9	333.6	278.8	225.9	184.8	156.5	135.1	122.3	118.6	119.6	119.6
40°	381.0	355.5	292.9	234.5	188.9	158.8	136.4	125.5	122.3	123.2	123.7
42.5°	407.0	376.9	307.6	242.3	194.4	161.5	139.2	129.6	127.3	128.2	128.2
45°	433.5	399.7	321.2	250.5	198.9	164.3	142.4	134.2	132.3	132.8	132.8
47.5°	459.5	420.3	333.6	257.8	203.1	166.6	145.6	138.7	137.3	137.8	137.3
50°	481.4	438.1	344.5	263.3	207.2	168.8	149.2	143.3	142.4	141.5	141.0
52.5°	500.6	454.0	353.2	267.4	209.0	169.7	152.4	147.8	146.9	145.1	144.6
55°	511.1	461.3	355.5	268.3	207.6	168.8	153.3	150.1	149.2	146.9	146.9
57.5°	513.3	461.3	350.4	264.2	203.1	165.6	152.9	149.2	148.3	146.0	146.0
59°	511.1	458.6	345.9	259.6	199.4	162.9	151.0	148.3	146.9	145.1	145.1
60°	508.8	456.8	342.7	255.1	197.1	161.1	149.2	146.9	145.6	144.2	144.2
62.5°	498.7	446.3	334.0	243.2	189.4	154.2	145.1	143.7	142.8	141.5	141.0
65°	470.9	421.2	315.8	230.0	177.5	146.0	138.3	137.8	137.3	135.1	134.2
67.5°	438.1	390.1	289.3	213.1	162.4	136.4	130.0	130.0	128.2	126.4	126.9
70°	404.3	360.5	261.9	192.1	145.1	124.1	119.1	119.6	117.7	117.3	117.7
72.5°	359.6	318.5	231.8	166.6	127.3	110.0	105.9	107.2	106.8	106.3	106.3
75°	303.0	270.1	195.3	140.5	107.7	94.5	92.2	92.6	93.1	92.6	92.6
77.5°	246.9	219.5	154.7	110.9	85.3	76.2	75.7	78.0	78.5	78.0	78.5
80°	183.0	161.5	112.7	81.2	63.4	58.4	59.3	62.5	63.4	63.4	64.3
82.5°	117.7	101.3	73.0	52.5	42.4	41.1	43.8	47.0	48.4	48.4	48.4
85°	46.5	42.0	33.8	26.0	24.2	26.0	29.2	31.0	33.3	33.3	32.9
87.5°	2.7	6.8	10.5	10.5	10.5	11.4	11.4	11.9	12.3	11.9	11.9
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

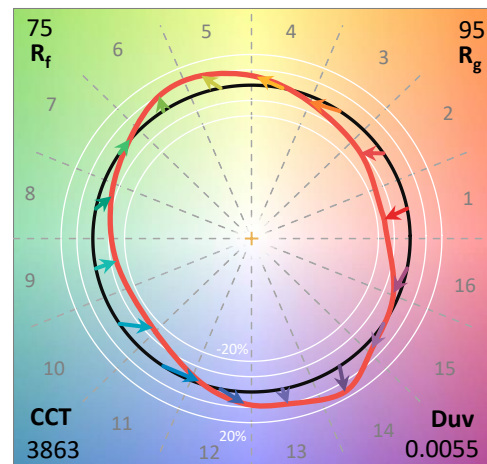
Test Information

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

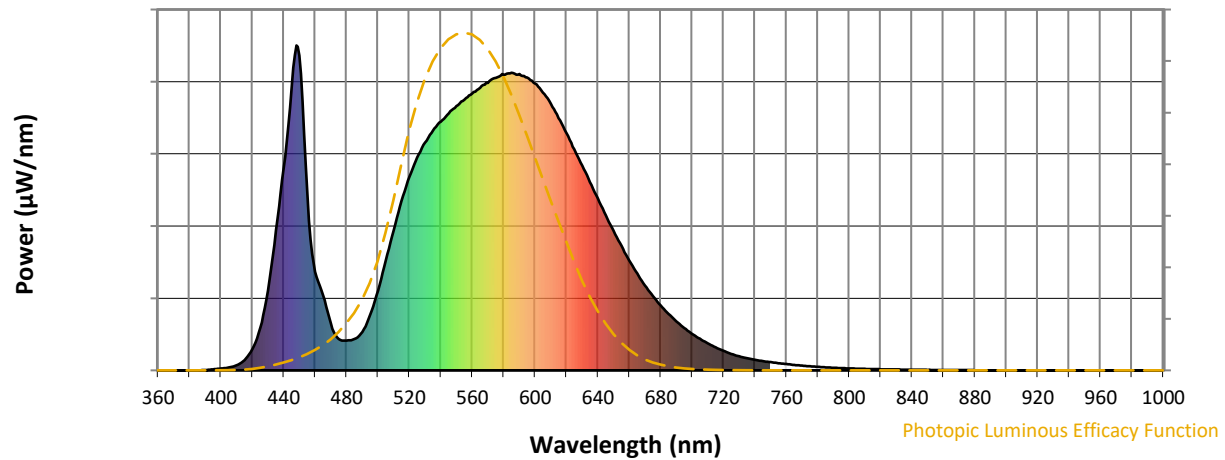
Stabilization Time: 37M
 Operation Time: 1H 37M
 Sphere Temperature (°C): 25.0

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

REPORT NUMBER: SP1-2411-284-2

Photopic Flux vs. Wavelength

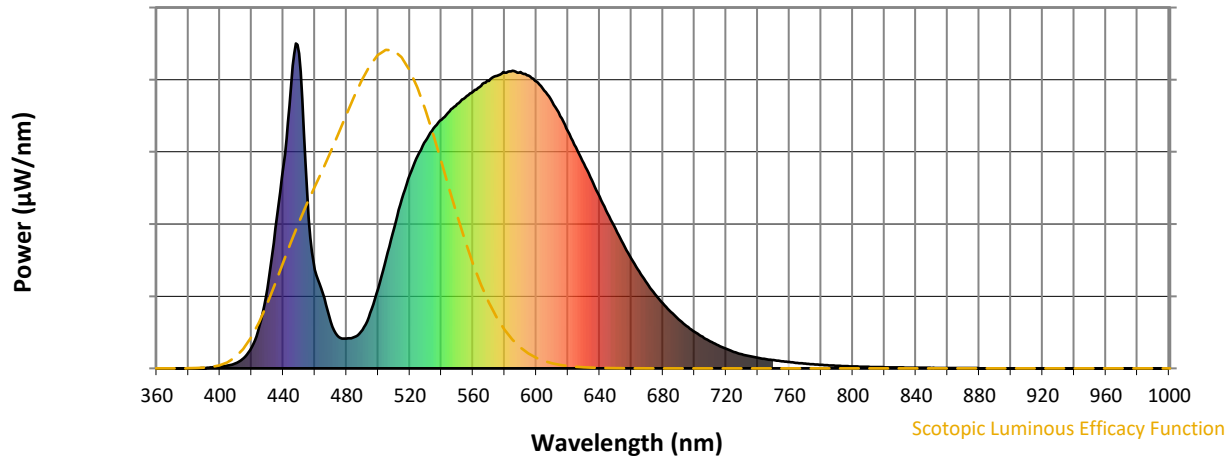


Photopic Lumens: NR

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



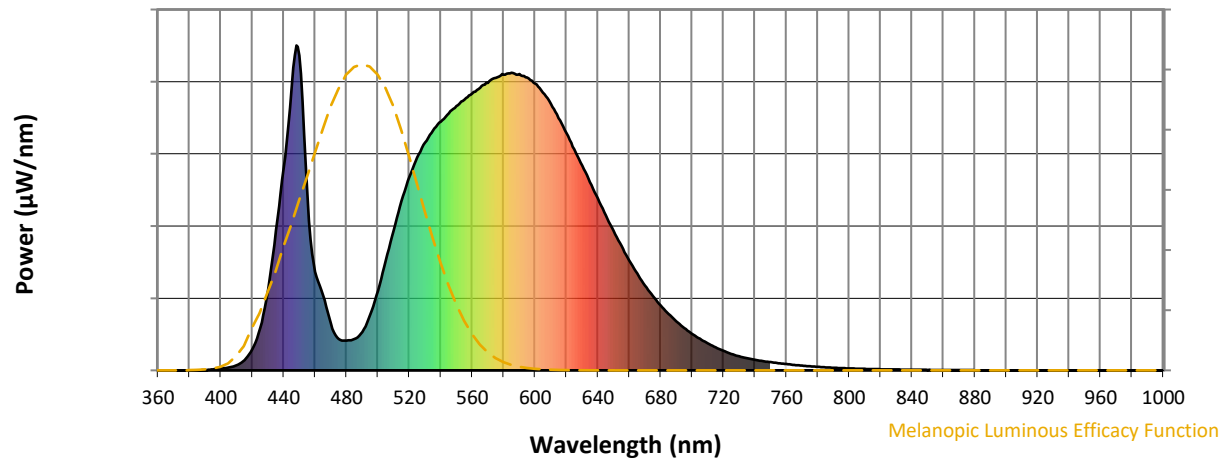
Scotopic Lumens: NR

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

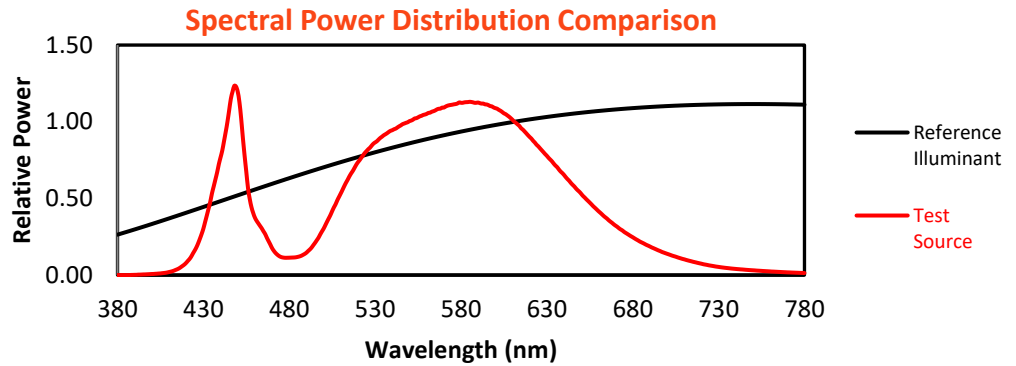
λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	118	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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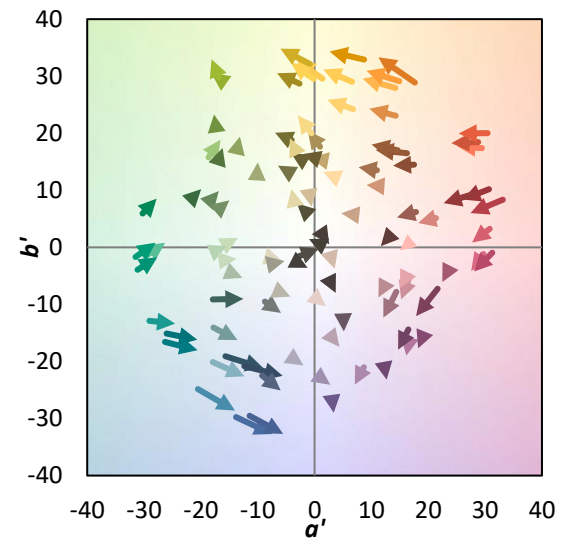
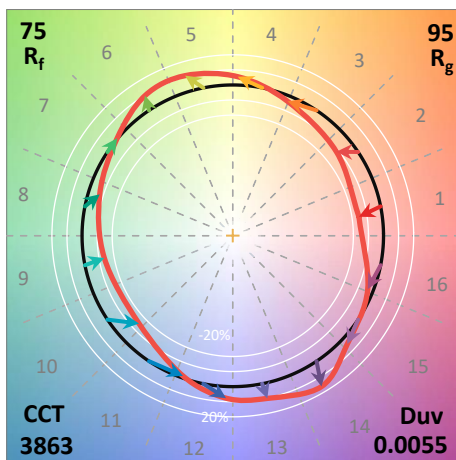
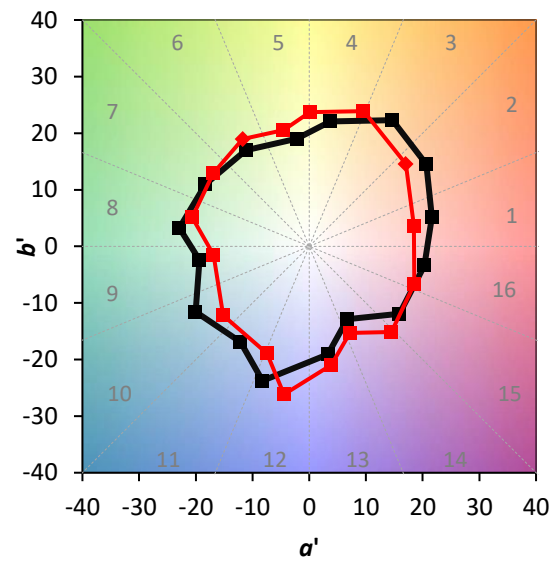
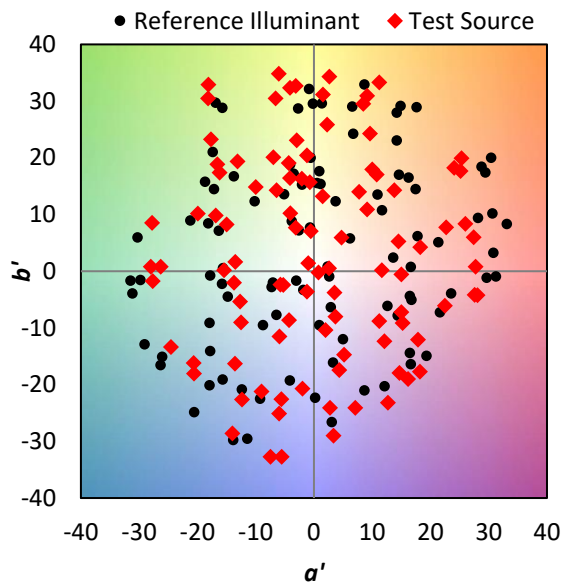
TM-30-18

Summary

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

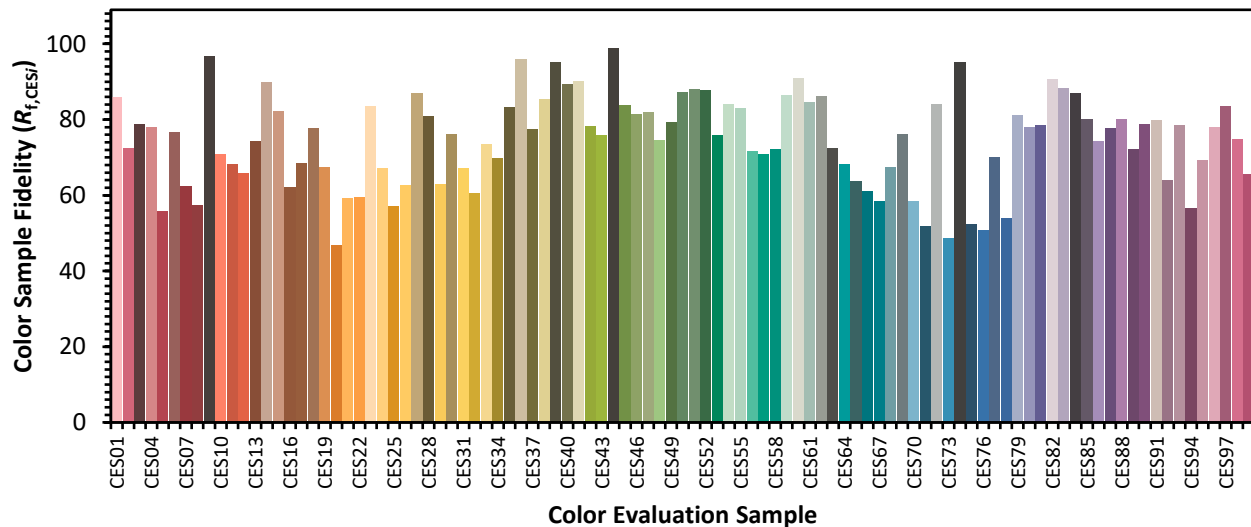


Color Vector Graphics

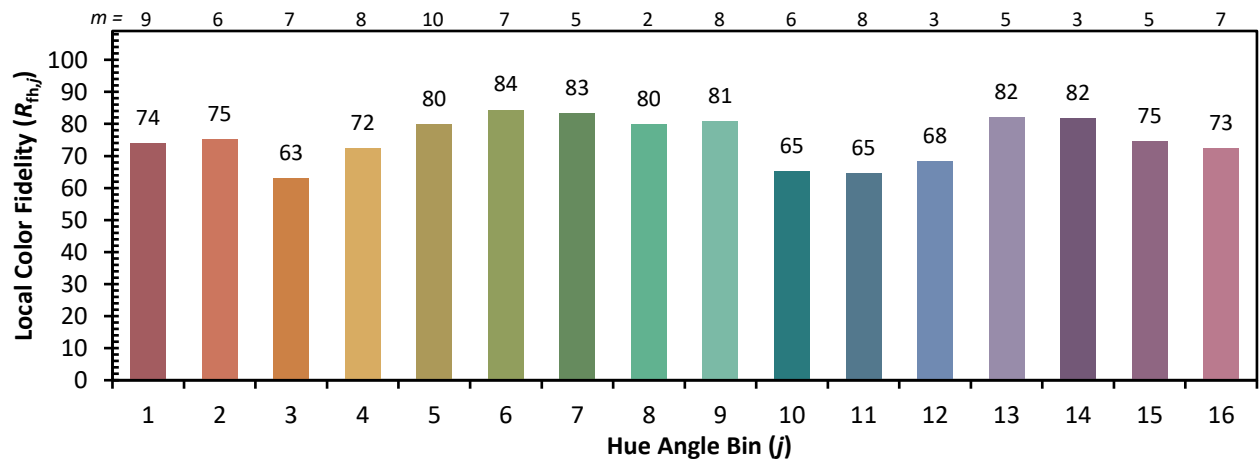
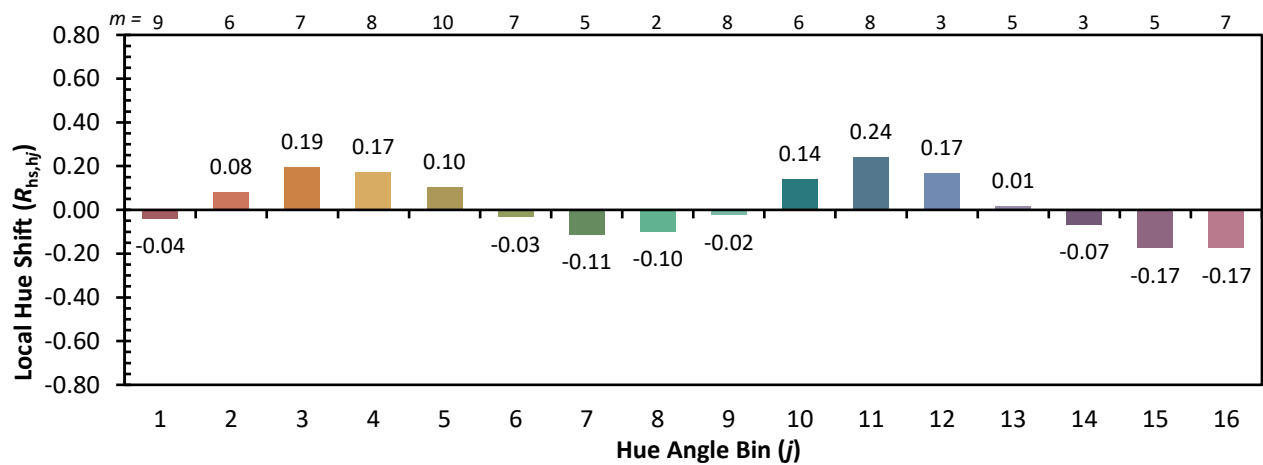
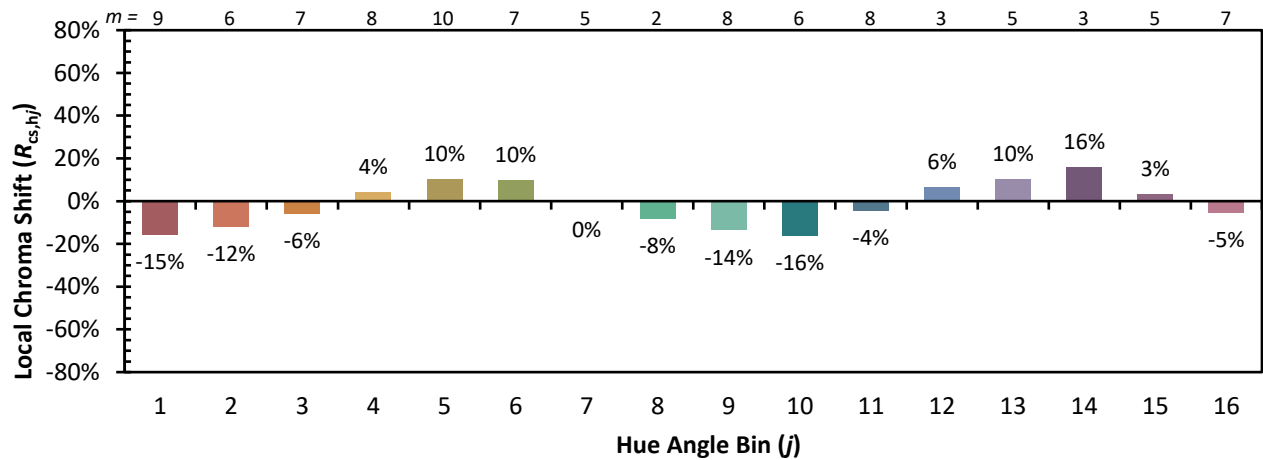


Individual Sample Fidelity Index ($R_{f,i}$)

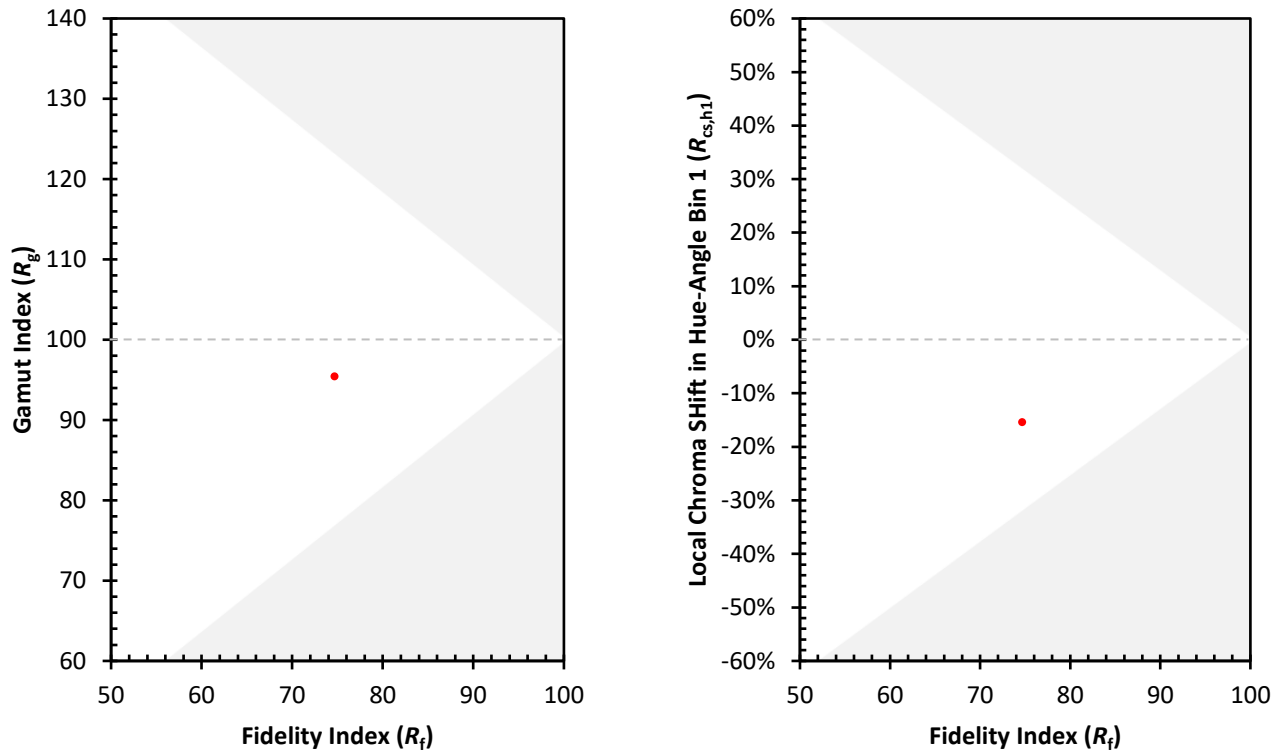
CES01 = 85	CES26 = 63	CES51 = 88	CES76 = 51
CES02 = 61	CES27 = 87	CES52 = 88	CES77 = 70
CES03 = 30	CES28 = 81	CES53 = 76	CES78 = 54
CES04 = 70	CES29 = 63	CES54 = 84	CES79 = 81
CES05 = 47	CES30 = 76	CES55 = 83	CES80 = 78
CES06 = 50	CES31 = 67	CES56 = 72	CES81 = 79
CES07 = 40	CES32 = 61	CES57 = 71	CES82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