

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: P1445167

Luminaire Tested: TPTN-VA2-740-U-MQ-CG-GM

Issue Date: 05/21/2026

Test Information

Test Method: LM-79-2024
Report Number: P1445167
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/21/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: MCGRAW-EDISON
Catalog Number: TPTN-VA2-740-U-MQ-CG-GM
Description: TOPTIER NANO SPIDER MOUNT VISUAL COMFORT LED LUMINAIRE 42W 70CRI 4000K w/
TYPE V MEDIUM DISTRIBUTION OPTIC AND GLASS
Light Source: 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

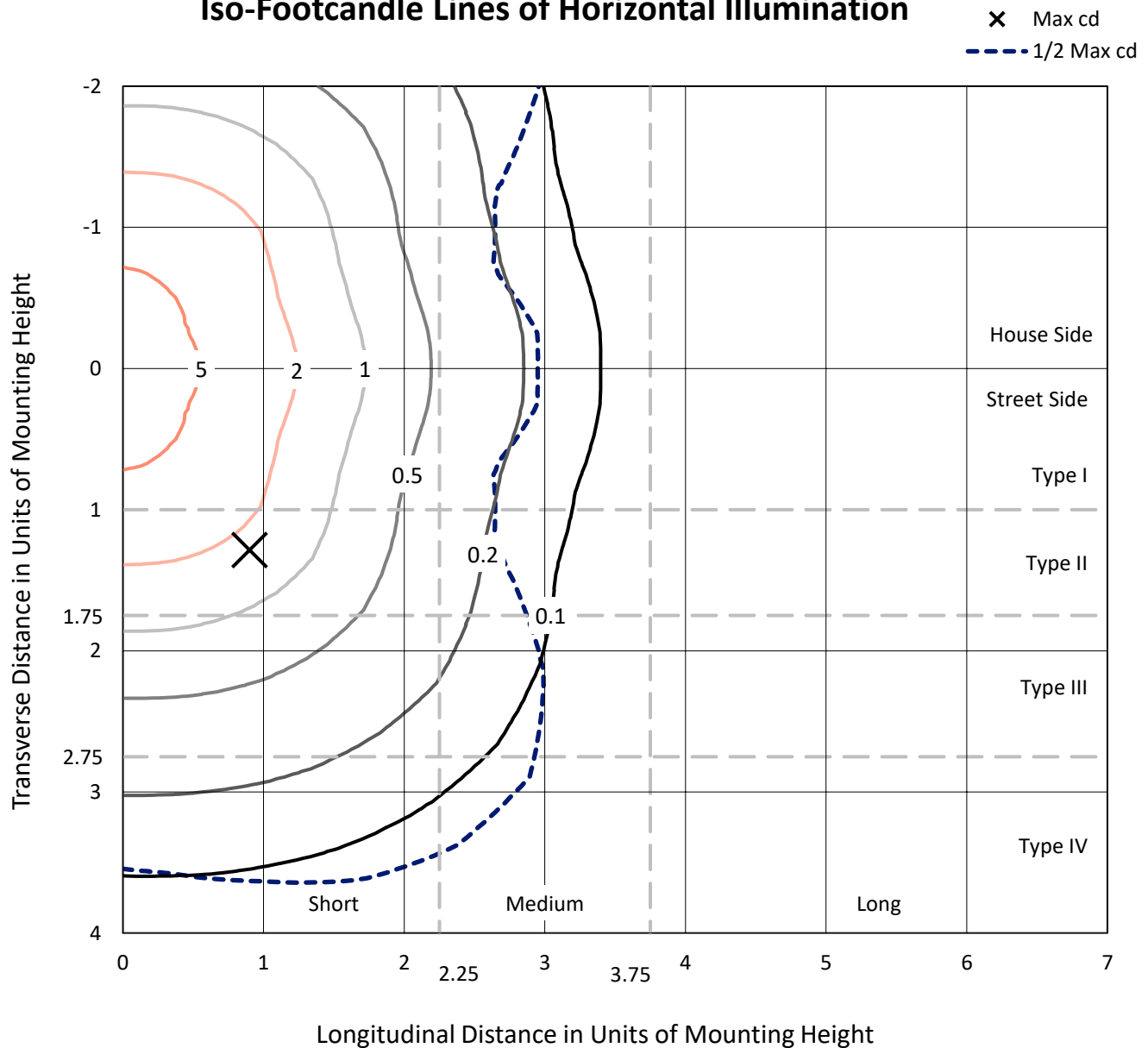
Lumens per Lamp: N/A
Luminaire Lumens: 4056.2 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Luminous Opening: Circular (Dia: 0.71' x H: 0')
IES Classification: Type V - Short
BUG Rating: B2 - U0 - G1

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

REPORT NUMBER: P1445167

CATALOG NUMBER: TPTN-VA2-740-U-MQ-CG-GM

Iso-Footcandle Lines of Horizontal Illumination



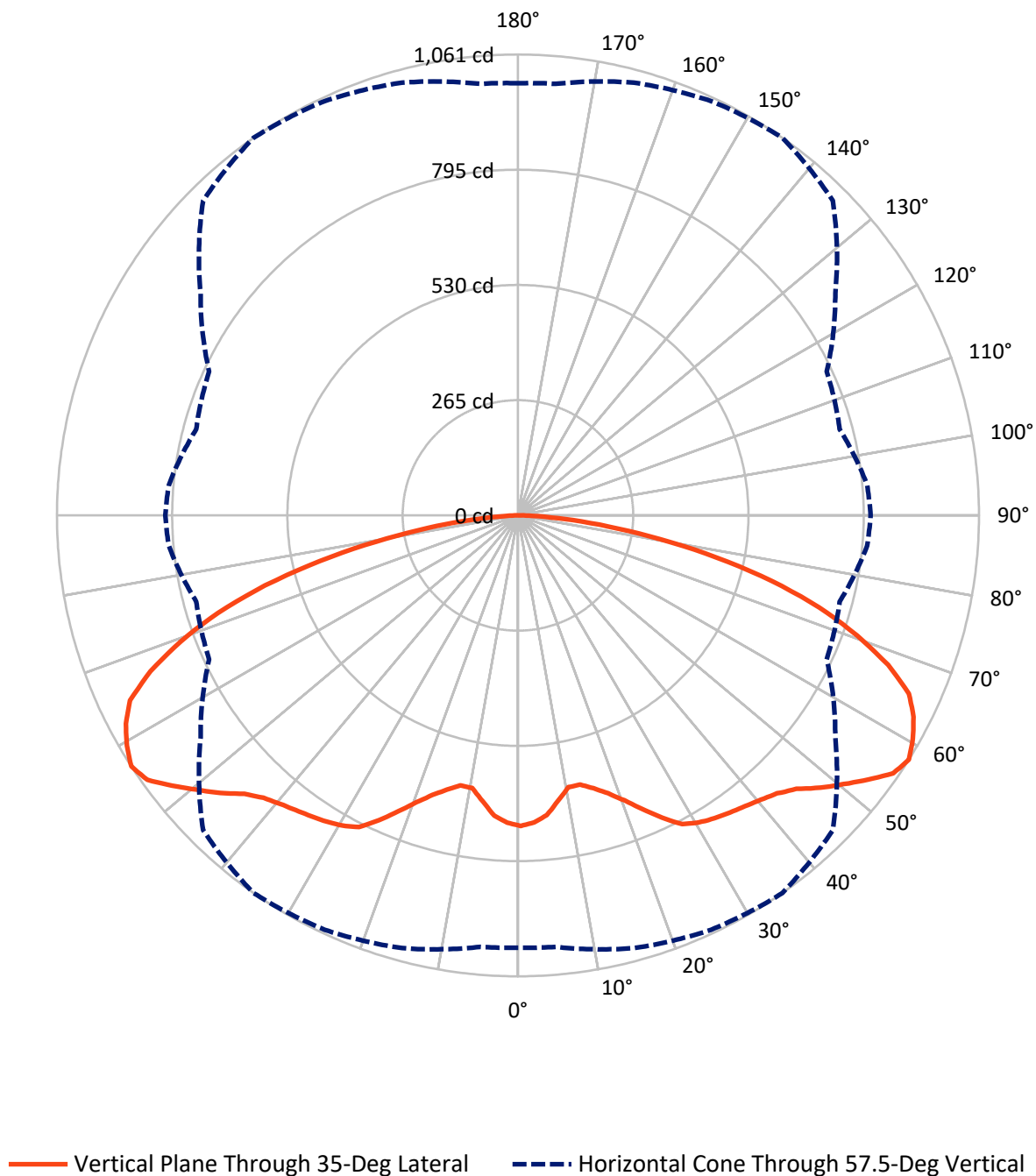
Based on 10 foot mounting height. Maximum calculated value = 7.1 fc

Type V - Short - N/A

REPORT NUMBER: P1445167

CATALOG NUMBER: TPTN-VA2-740-U-MQ-CG-GM

Luminous Intensity Polar Plot



REPORT NUMBER: P1445167

CATALOG NUMBER: TPTN-VA2-740-U-MQ-CG-GM

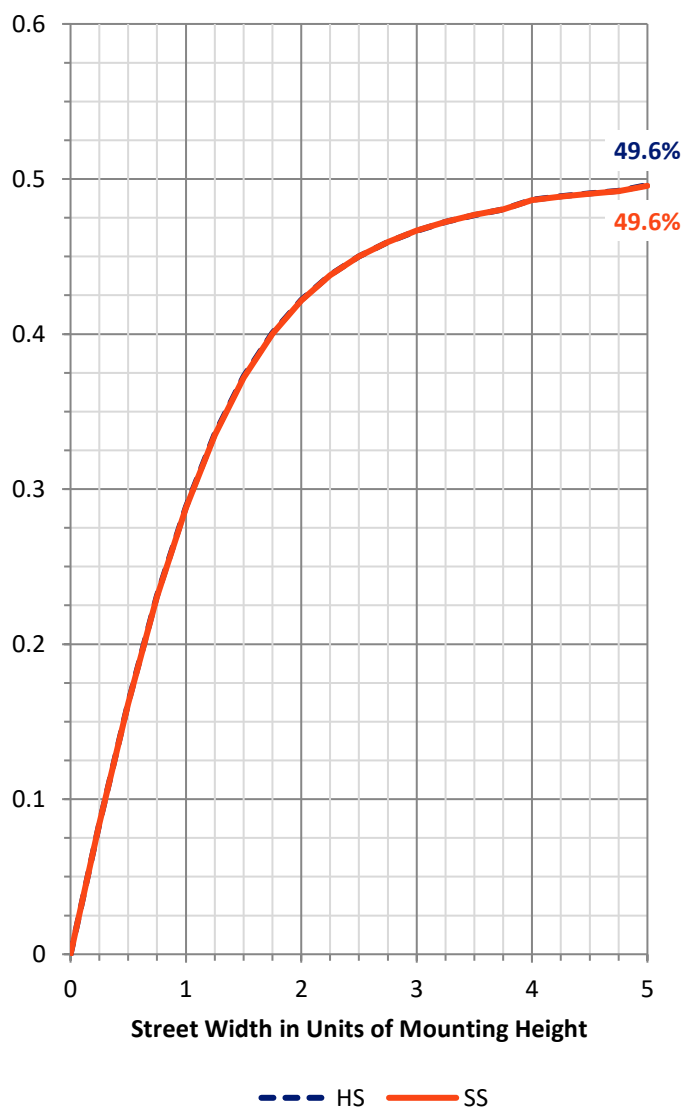
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2028.1	0.0	2028.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2028.1	0.0	2028.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	4056.2	0.0	4056.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.6	1.6
10°-20°	187.9	4.6
20°-30°	349.9	8.6
30°-40°	512.4	12.6
40°-50°	663.3	16.4
50°-60°	828.1	20.4
60°-70°	821.3	20.2
70°-80°	518.4	12.8
80°-90°	110.4	2.7
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°	4056.2	100.0
0°-180°	4056.2	100.0

Coefficient of Utilization



REPORT NUMBER: P1445167

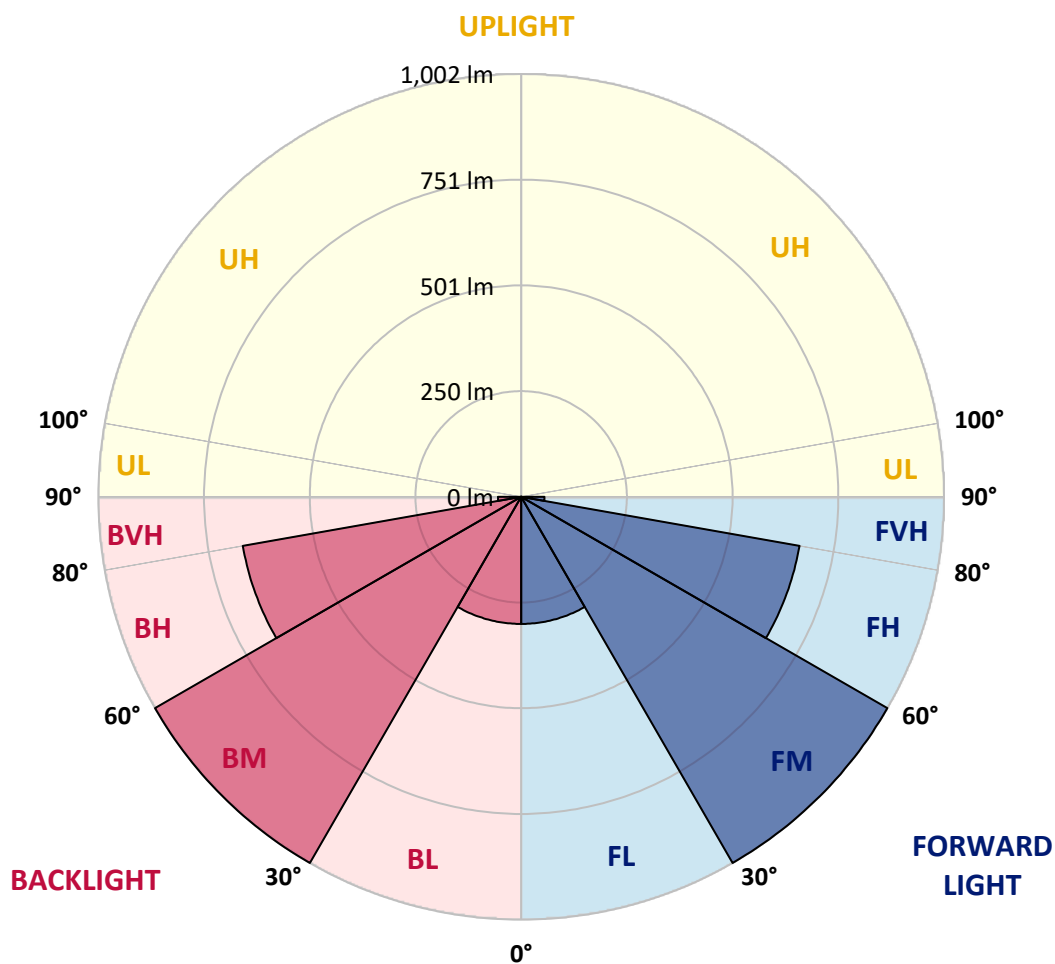
CATALOG NUMBER: TPTN-VA2-740-U-MQ-CG-GM

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	301.2	7.4			
FM	(30°-60°)	1001.9	24.7			
FH	(60°-80°)	669.8	16.5			G1/1800
FVH	(80°-90°)	55.2	1.4			G1/100
BL	(0°-30°)	301.2	7.4	B1/500		
BM	(30°-60°)	1001.9	24.7	B2/2500		
BH	(60°-80°)	669.8	16.5	B2/1000		G1/1800
BVH	(80°-90°)	55.2	1.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type V Short



REPORT NUMBER: P1445167

CATALOG NUMBER: TPTN-VA2-740-U-MQ-CG-GM

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	714.5	714.5	714.5	714.5	714.5	714.5	714.5	714.5	714.5	714.5	714.5
2.5°	707.3	707.3	707.3	707.3	707.3	707.3	707.3	708.0	708.0	708.0	708.0
5°	691.3	690.5	690.5	690.5	692.7	694.2	697.8	700.0	702.2	702.9	702.9
7.5°	659.3	660.0	660.7	661.5	662.9	666.6	671.6	676.7	680.4	682.5	683.3
10°	633.8	633.8	634.6	633.8	636.0	640.4	646.9	655.6	662.2	665.8	665.8
12.5°	628.0	628.0	630.2	632.4	635.3	639.7	646.9	654.2	660.7	663.6	663.6
15°	637.5	639.7	642.6	648.4	651.3	652.0	656.4	662.2	668.7	672.4	673.1
17.5°	659.3	660.7	668.7	673.1	672.4	668.7	668.7	672.4	679.6	684.7	684.7
20°	699.3	700.7	704.3	705.1	700.0	689.8	681.8	683.3	692.7	699.3	700.7
22.5°	753.8	753.8	750.1	748.7	734.2	714.5	699.3	697.1	706.5	716.7	717.4
25°	811.9	811.9	804.7	791.6	770.5	742.1	719.6	710.2	720.3	732.0	734.2
27.5°	862.8	862.1	848.3	826.5	804.7	769.8	740.0	724.0	731.2	745.8	748.0
30°	896.2	893.3	870.8	842.5	819.9	783.6	750.1	731.2	737.8	753.8	756.0
32.5°	919.5	915.1	886.8	855.5	830.8	793.8	756.7	736.3	742.1	759.6	761.0
35°	933.3	928.2	898.4	867.2	839.5	801.8	761.0	737.8	743.6	762.5	764.7
37.5°	941.3	936.2	910.1	878.8	849.0	812.7	765.4	740.0	744.3	764.0	766.1
40°	944.2	942.8	921.7	891.9	859.9	822.8	771.2	740.7	744.3	765.4	768.3
42.5°	947.1	948.6	933.3	905.7	874.4	835.2	777.8	742.1	744.3	767.6	769.0
45°	955.8	956.6	950.8	928.2	897.7	858.4	790.1	749.4	748.0	771.9	775.6
47.5°	972.6	974.7	974.7	960.2	936.2	897.0	813.4	761.8	758.1	787.9	790.8
50°	983.5	986.4	997.3	987.1	971.8	929.7	835.9	770.5	767.6	798.8	801.8
52.5°	995.1	998.7	1016.2	1021.3	1009.6	963.1	859.9	785.8	773.4	809.0	811.9
55°	1009.6	1010.4	1035.1	1052.5	1047.4	1009.6	884.6	795.9	779.9	819.2	824.3
57.5°	994.4	996.6	1030.7	1051.8	1060.5	1024.2	891.2	783.6	766.1	806.1	811.2
60°	965.3	970.4	1005.3	1037.3	1043.8	1007.5	875.9	760.3	738.5	782.9	785.8
62.5°	930.4	939.1	971.1	1008.2	1021.3	989.3	855.5	727.6	705.1	756.7	758.1
65°	871.5	883.2	930.4	962.4	988.6	956.6	827.9	684.7	665.1	708.7	708.7
67.5°	795.9	803.2	848.3	901.3	918.1	895.5	769.8	630.9	598.2	641.8	646.9
70°	713.8	718.2	752.3	809.0	827.9	818.5	697.8	561.9	523.4	572.1	573.5
72.5°	612.8	620.0	654.2	701.4	725.4	718.2	612.0	480.5	446.3	488.5	484.1
75°	491.4	500.1	533.5	576.4	604.0	596.0	514.6	390.3	363.4	391.8	391.1
77.5°	380.2	380.2	410.0	449.9	467.4	461.6	396.9	300.9	272.6	296.6	298.7
80°	263.9	263.1	288.6	316.9	331.5	330.7	285.7	208.6	190.4	203.5	199.9
82.5°	159.2	160.6	175.9	194.8	209.3	210.1	180.3	128.7	115.6	120.7	117.8
85°	69.1	72.7	83.6	95.9	106.9	106.9	94.5	64.0	56.7	52.3	48.0
87.5°	16.7	16.7	21.8	26.9	32.0	34.2	31.3	24.0	21.1	12.4	5.8
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

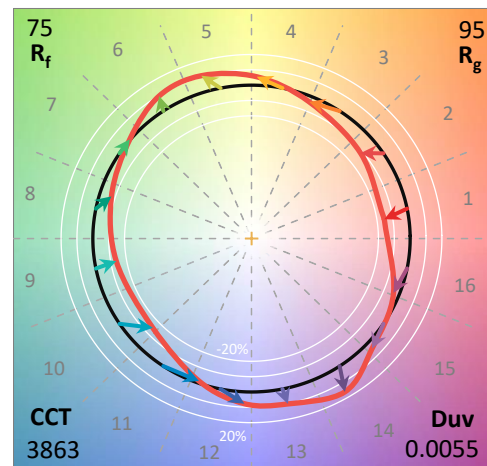
Test Information

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

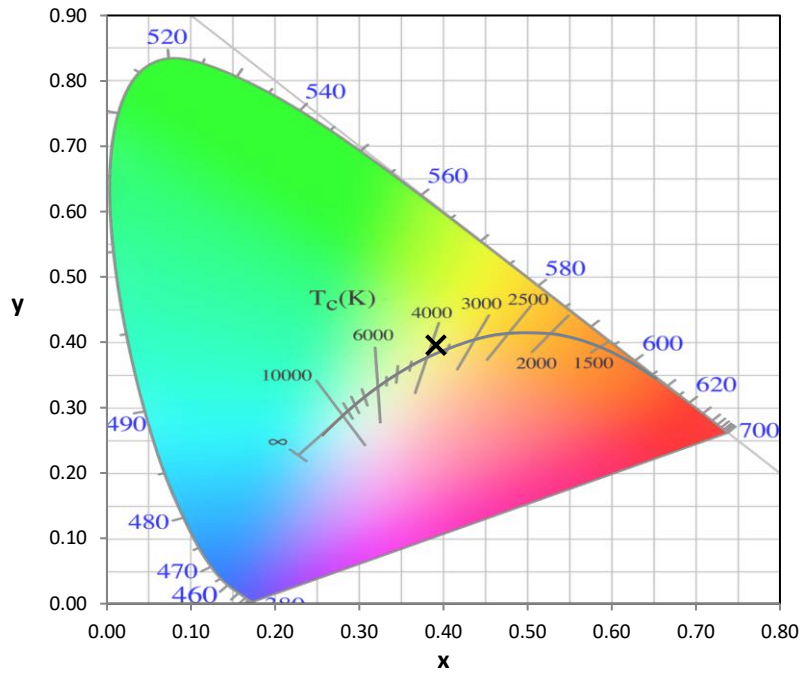
Stabilization Time: 37M
 Operation Time: 1H 37M
 Sphere Temperature (°C): 25.0

REPORT NUMBER: SP1-2411-284-2

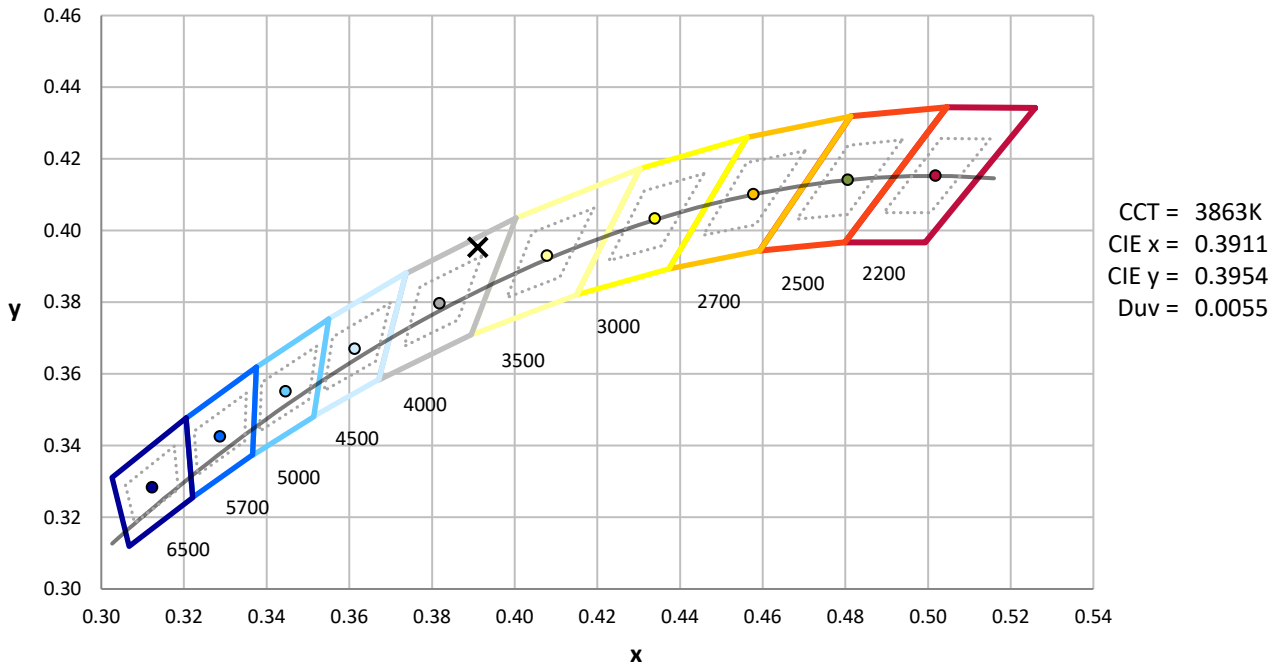
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2411-284-2

CIE 1931 Chromaticity Diagram



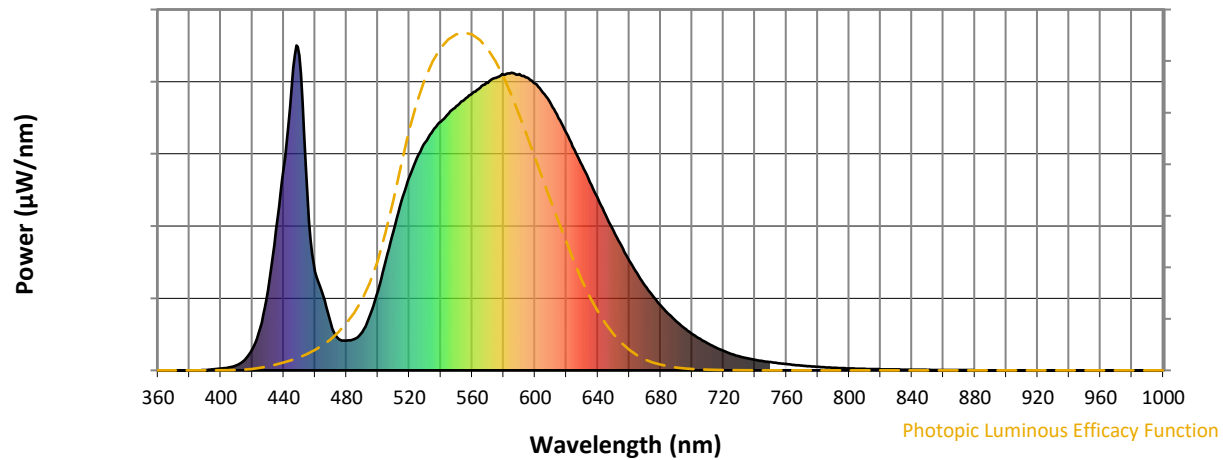
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 4000K 7-step quadrangle

REPORT NUMBER: SP1-2411-284-2

Photopic Flux vs. Wavelength

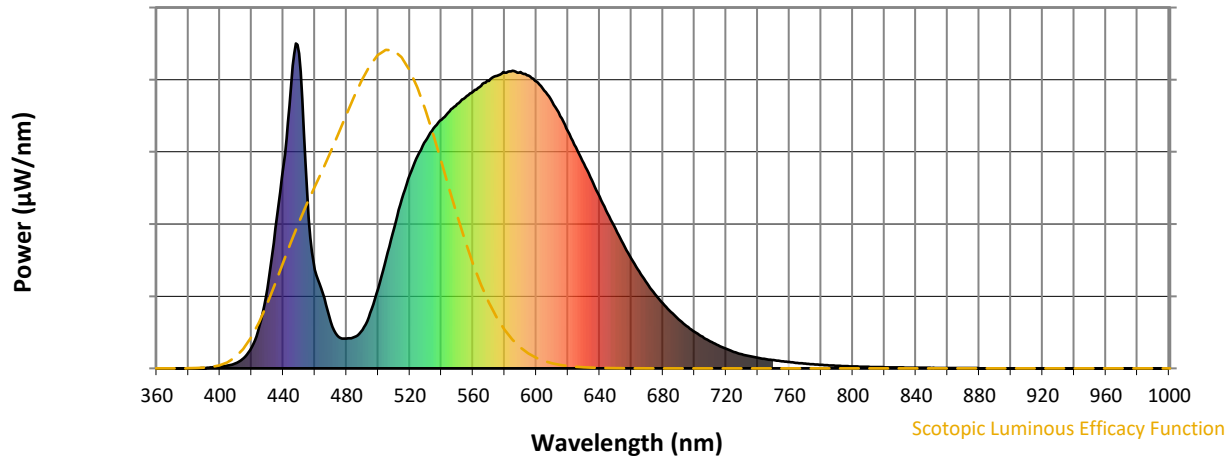


Photopic Lumens: NR

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			

REPORT NUMBER: SP1-2411-284-2

Scotopic Flux vs. Wavelength



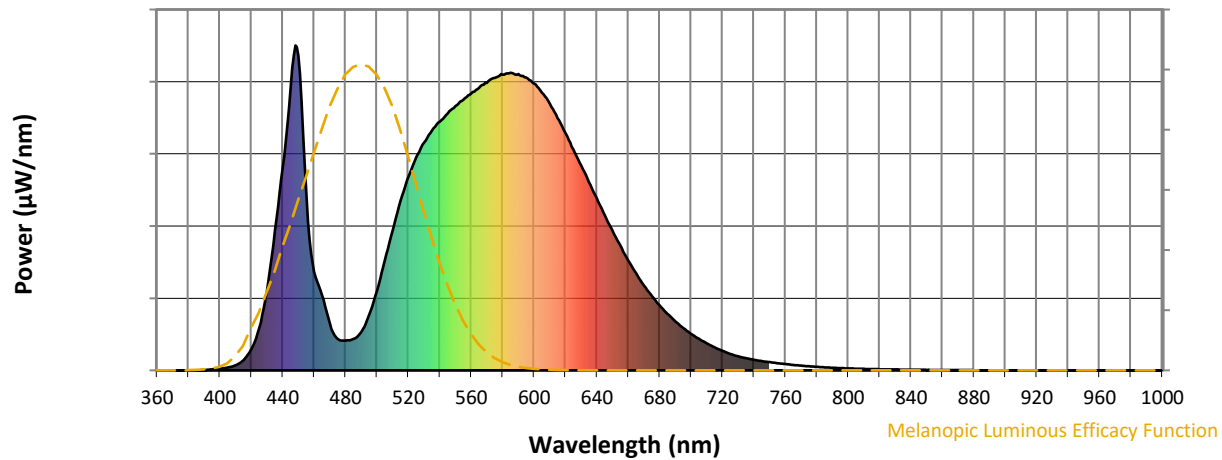
Scotopic Lumens: NR

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			

REPORT NUMBER: SP1-2411-284-2

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 2.72

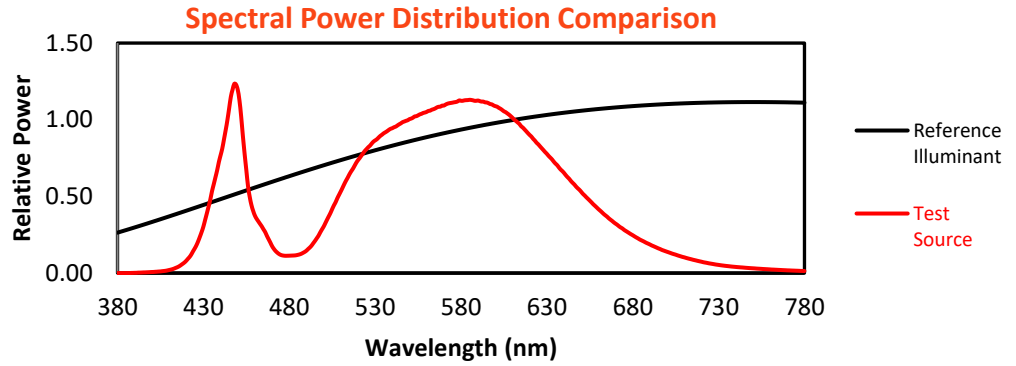
λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)	λ (nm)	Power W [^] /nm	Lumens (φ/nm)
360	0	NR	490	118	NR	620	730	NR	750	25	NR	880	1	NR
365	0	NR	495	170	NR	625	680	NR	755	22	NR	885	0	NR
370	0	NR	500	245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

REPORT NUMBER: SP1-2411-284-2

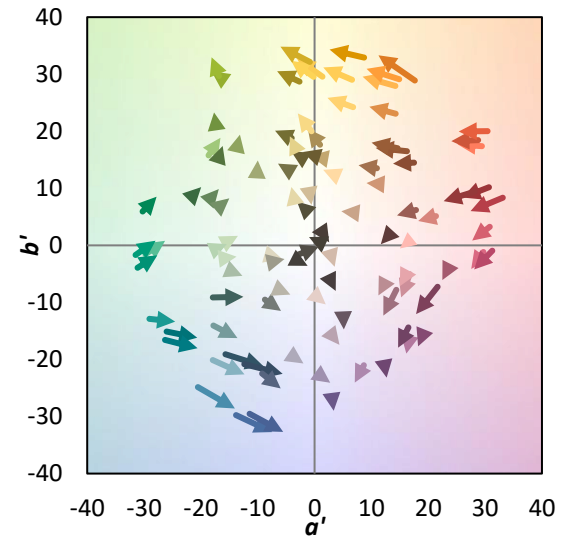
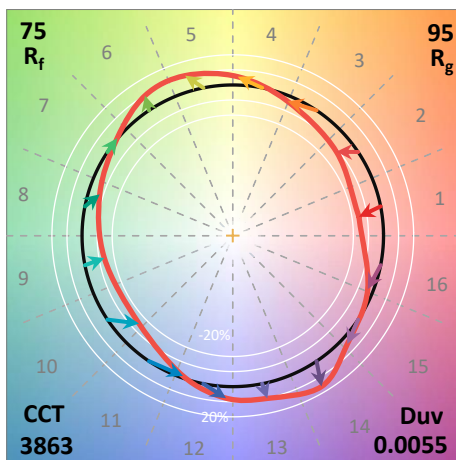
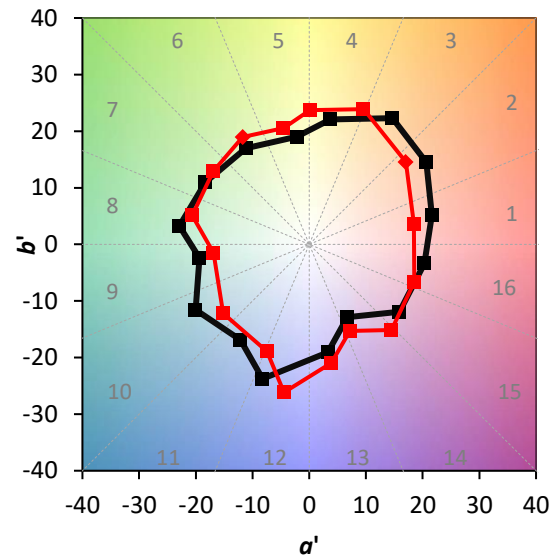
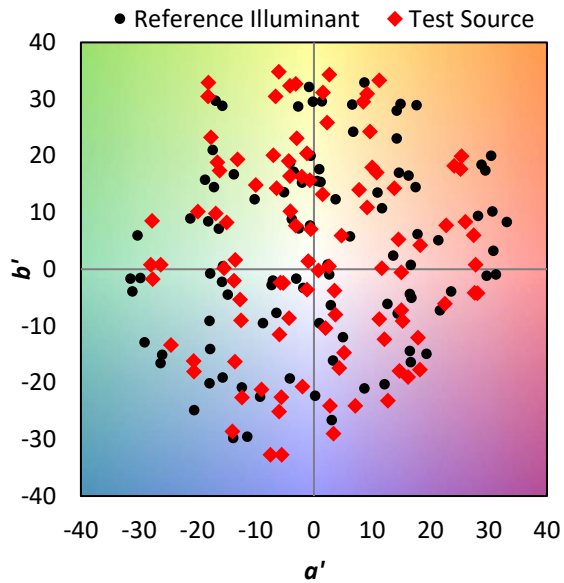
TM-30-18

Summary

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

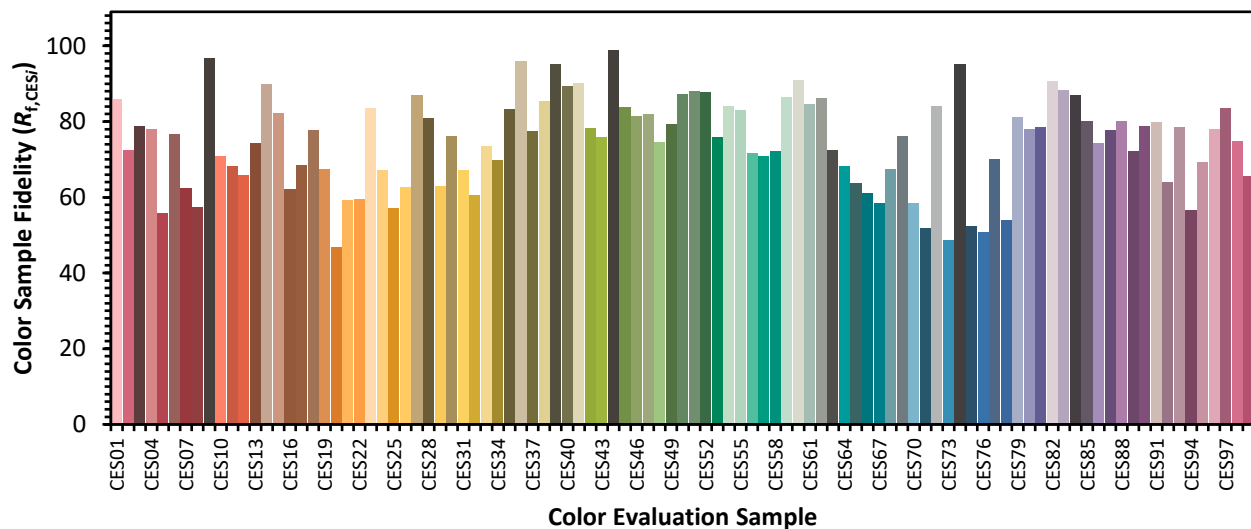


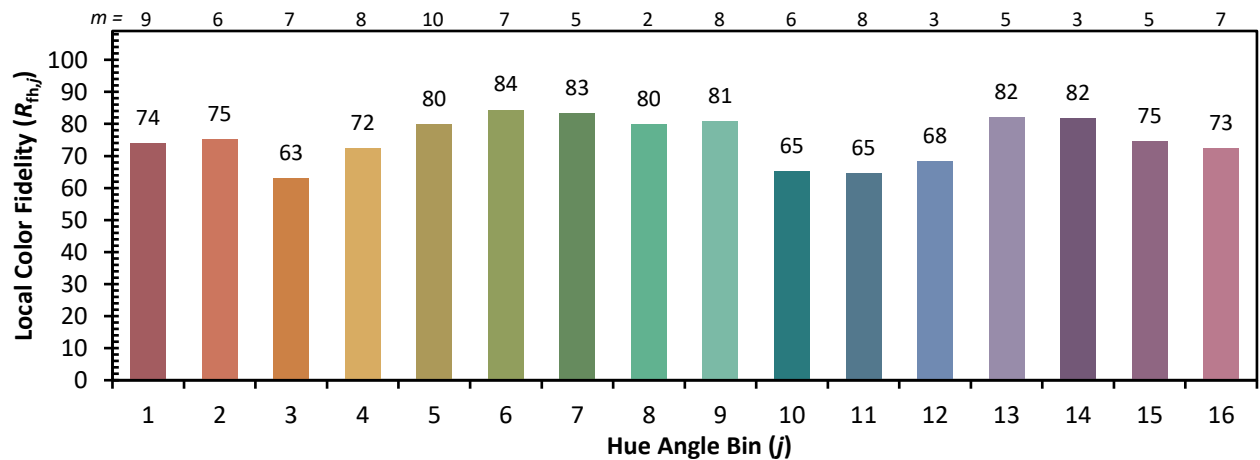
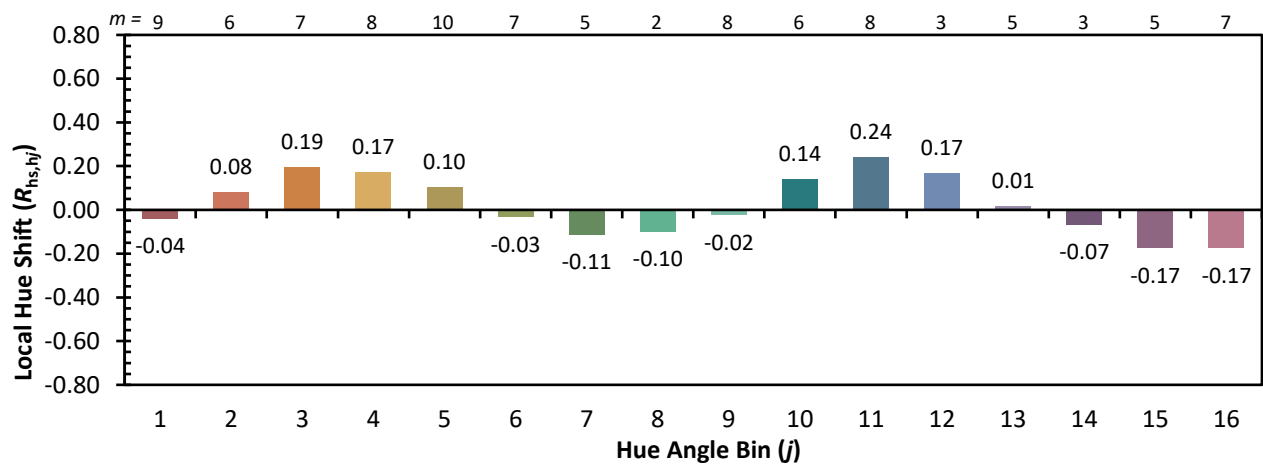
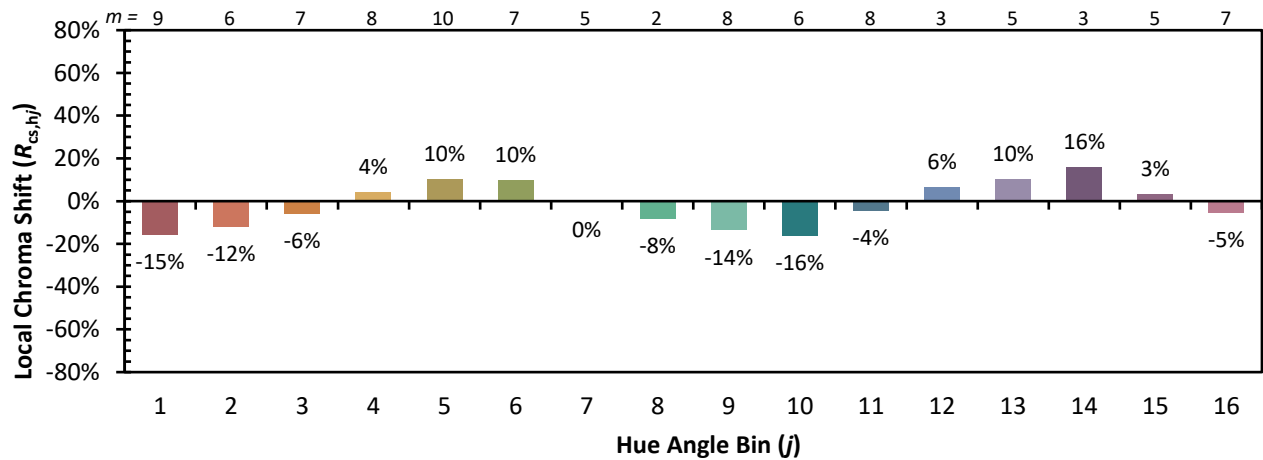
Color Vector Graphics



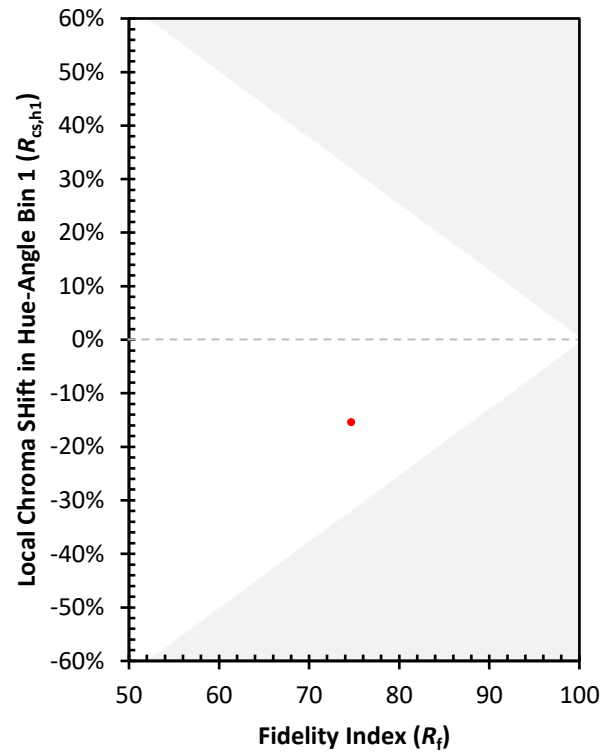
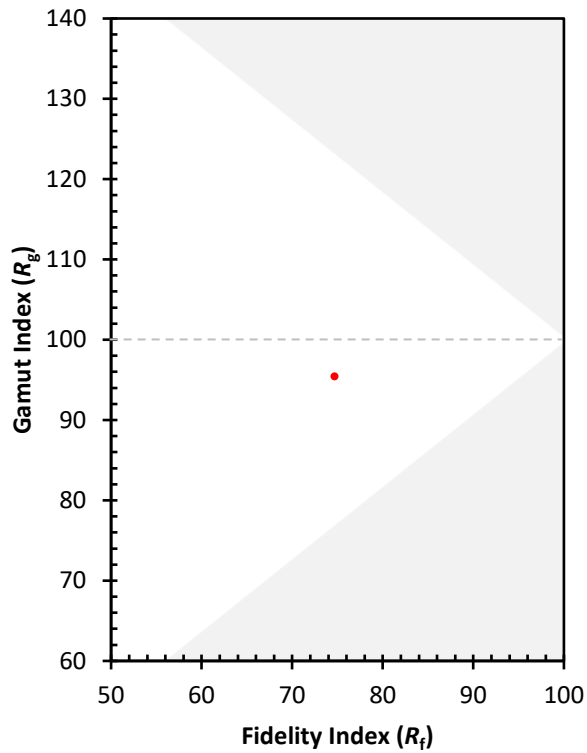
Individual Sample Fidelity Index ($R_{f,i}$)

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)