

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: P1445159

Luminaire Tested: TPTN-VA2-830-U-MQ-GM

Issue Date: 05/21/2026

Test Information

Test Method: LM-79-2024
Report Number: P1445159
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/21/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: MCGRAW-EDISON
Catalog Number: TPTN-VA2-830-U-MQ-GM
Description: TOPTIER NANO SPIDER MOUNT VISUAL COMFORT LED LUMINAIRE 42W 80CRI 3000K w/
TYPE V MEDIUM DISTRIBUTION OPTIC
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3845.5 lumens
Efficiency: N/A
Efficacy: 91.3 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

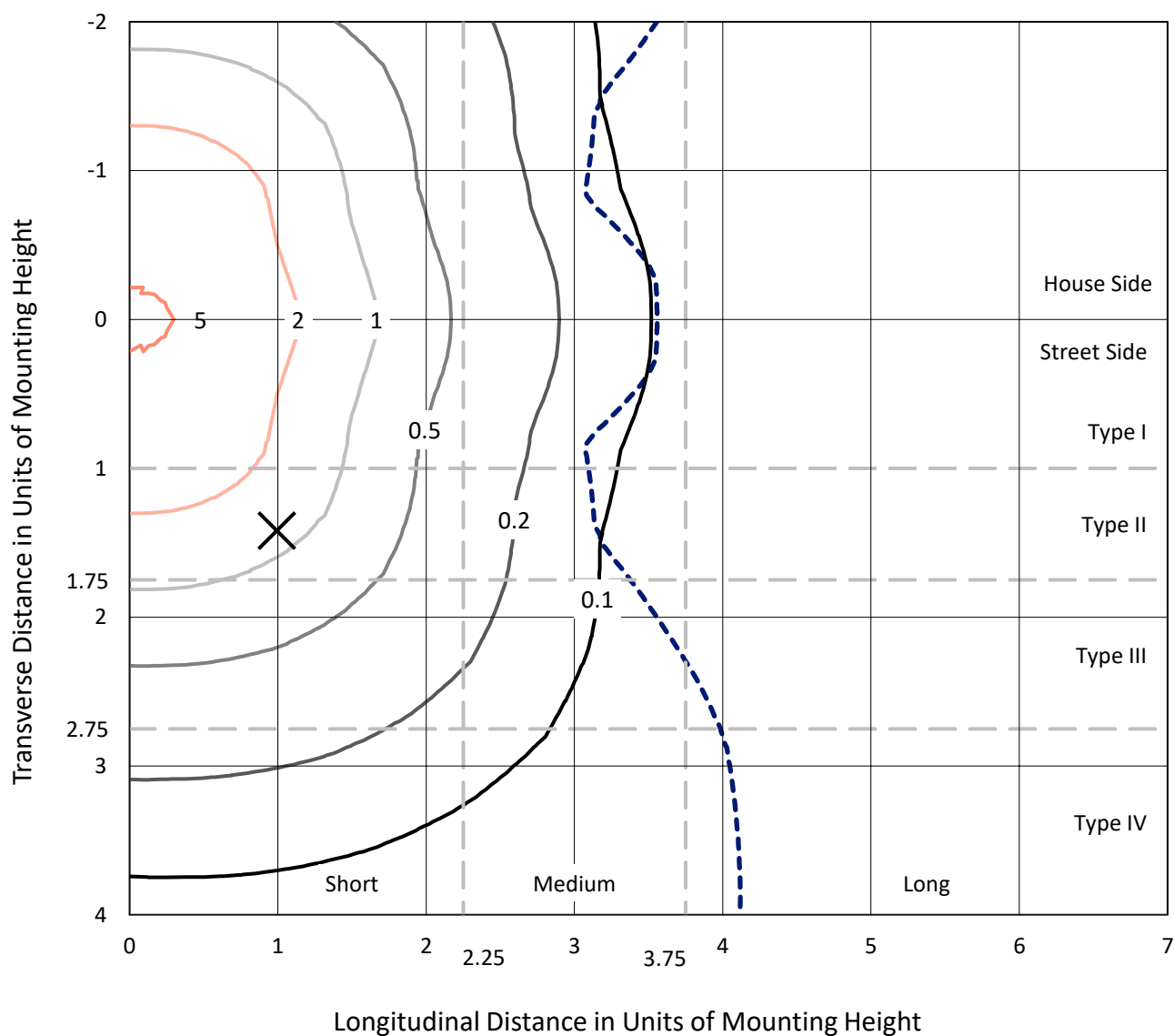
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CATALOG NUMBER: TPTN-VA2-830-U-MQ-GM

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



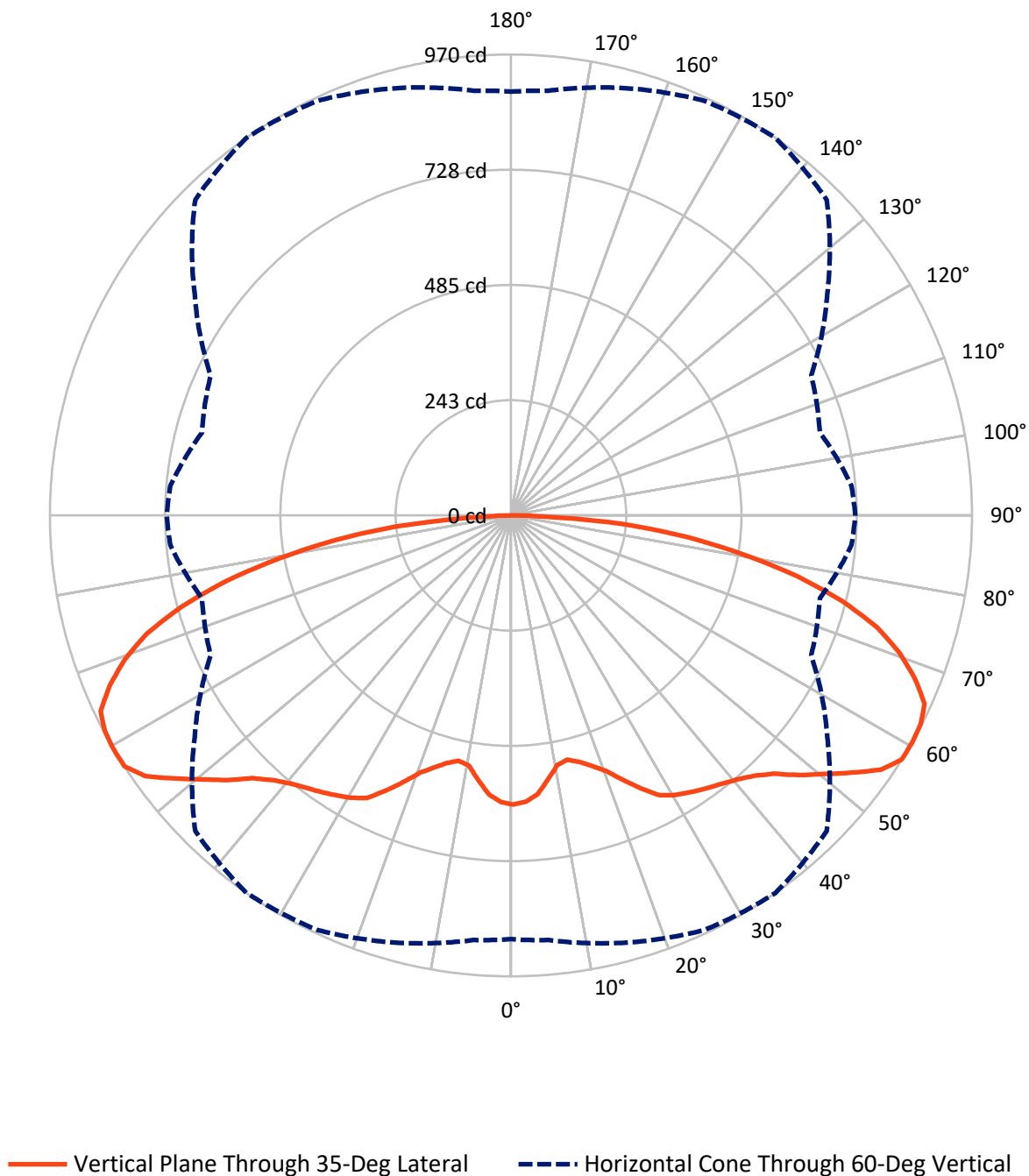
Based on 10 foot mounting height. Maximum calculated value = 6.1 fc

Type V - Short - N/A

REPORT NUMBER: P1445159

CATALOG NUMBER: TPTN-VA2-830-U-MQ-GM

Luminous Intensity Polar Plot



REPORT NUMBER: P1445159

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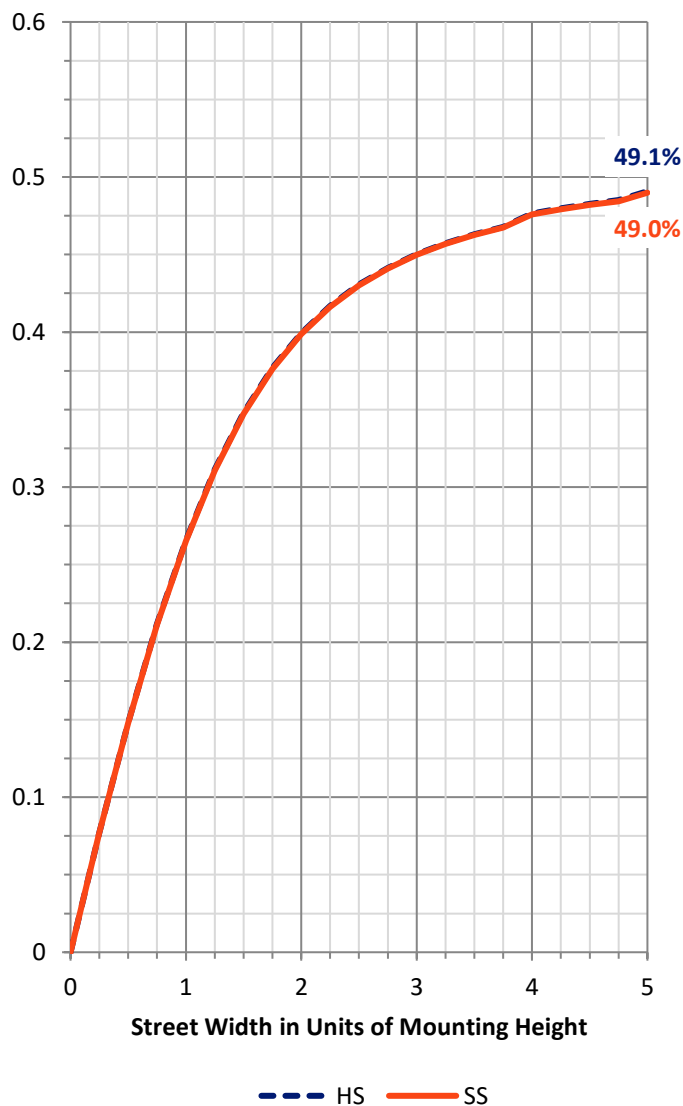
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1922.8	0.0	1922.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1922.8	0.0	1922.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	3845.5	0.0	3845.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.7	1.4
10°-20°	155.8	4.1
20°-30°	289.8	7.5
30°-40°	430.8	11.2
40°-50°	571.5	14.9
50°-60°	745.3	19.4
60°-70°	795.3	20.7
70°-80°	610.2	15.9
80°-90°	192.1	5.0
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°	3845.5	100.0
0°-180°	3845.5	100.0

Coefficient of Utilization



REPORT NUMBER: P1445159

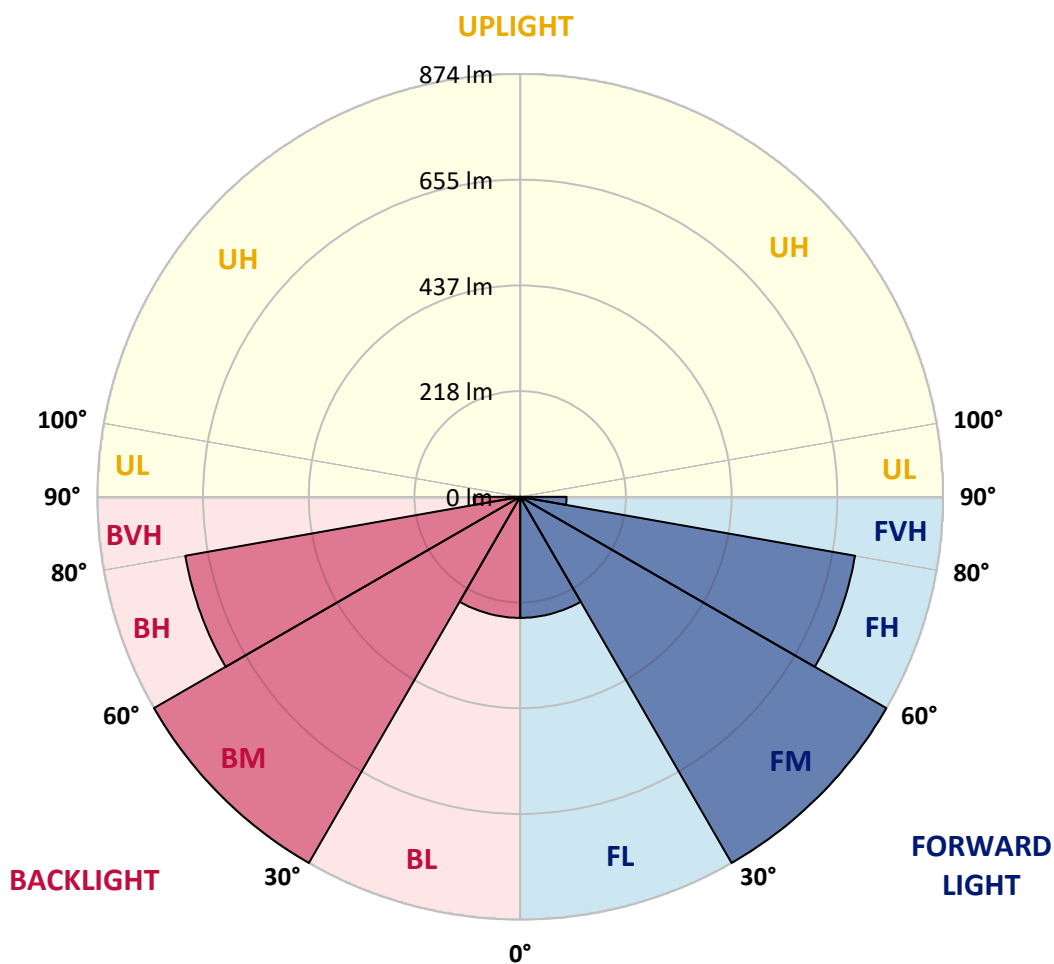
CATALOG NUMBER: TPTN-VA2-830-U-MQ-GM

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	250.2	6.5			
FM	(30°-60°)	873.8	22.7			
FH	(60°-80°)	702.8	18.3			G1/1800
FVH	(80°-90°)	96.0	2.5			G1/100
BL	(0°-30°)	250.2	6.5	B1/500		
BM	(30°-60°)	873.8	22.7	B1/1000		
BH	(60°-80°)	702.8	18.3	B2/1000		G1/1800
BVH	(80°-90°)	96.0	2.5			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: P1445159

CATALOG NUMBER: TPTN-VA2-830-U-MQ-GM

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	608.5	608.5	608.5	608.5	608.5	608.5	608.5	608.5	608.5	608.5	608.5
2.5°	603.3	603.3	604.0	604.0	603.3	603.3	602.7	602.7	603.3	604.0	604.0
5°	587.0	587.0	587.0	587.7	589.0	589.6	592.2	594.2	596.1	596.1	596.1
7.5°	558.3	557.7	559.0	560.3	561.0	564.2	568.1	570.7	574.6	577.2	577.9
10°	533.6	532.3	532.9	532.9	534.2	537.5	544.0	551.2	556.4	559.0	560.3
12.5°	523.2	523.2	523.8	525.1	527.7	532.3	539.5	547.3	552.5	554.4	555.1
15°	526.4	527.1	529.0	534.2	538.2	540.8	545.3	552.5	557.7	561.6	561.0
17.5°	536.8	538.8	546.6	551.8	554.4	553.8	554.4	559.0	566.2	570.7	571.4
20°	564.2	566.2	573.3	577.2	574.6	570.1	566.2	568.1	577.2	583.1	585.1
22.5°	607.2	607.9	609.2	611.8	605.3	591.6	580.5	580.5	590.9	599.4	601.3
25°	658.7	658.0	655.4	650.2	636.5	615.7	598.7	593.5	602.0	613.7	615.7
27.5°	705.6	706.9	695.8	682.1	667.2	641.1	618.3	607.2	613.7	626.8	629.4
30°	741.4	738.8	719.9	697.1	682.8	654.1	628.1	615.0	620.2	635.2	637.2
32.5°	766.8	762.3	736.2	710.2	694.5	665.2	635.2	620.2	624.8	640.4	642.4
35°	784.4	778.6	749.9	722.5	706.2	675.0	640.4	622.2	626.8	643.7	646.3
37.5°	796.2	790.9	763.6	736.9	717.3	687.3	645.0	625.5	630.0	647.6	649.6
40°	804.0	800.7	777.3	752.5	731.0	701.0	652.2	628.1	632.6	651.5	654.1
42.5°	810.5	810.5	792.9	770.1	749.2	716.0	661.3	632.6	635.9	656.7	660.0
45°	822.2	822.2	813.1	796.8	775.3	740.8	676.3	643.0	643.7	667.2	669.1
47.5°	843.1	844.4	843.7	832.0	816.3	783.8	704.9	660.0	657.4	685.4	687.3
50°	862.6	865.2	874.3	865.2	855.4	819.6	732.3	673.0	669.8	700.4	701.7
52.5°	882.8	886.7	904.3	908.9	899.1	860.0	762.3	692.6	680.2	716.7	719.3
55°	906.3	908.2	933.0	948.6	944.7	913.4	796.8	709.5	692.6	733.0	738.2
57.5°	905.0	907.6	940.1	962.9	969.5	940.8	814.4	706.9	688.7	729.7	736.2
60°	891.9	897.1	931.0	962.9	970.1	939.5	812.4	697.1	673.0	719.3	724.5
62.5°	877.6	885.4	918.0	953.2	967.5	938.2	809.2	678.9	655.4	709.5	712.1
65°	843.7	852.2	898.4	931.0	956.4	926.5	800.7	654.1	633.9	680.8	682.8
67.5°	794.8	800.7	843.1	898.4	916.7	891.9	766.2	622.2	585.1	635.2	639.1
70°	743.4	747.9	784.4	847.0	867.8	854.1	727.1	576.6	535.5	591.6	597.4
72.5°	672.4	678.2	718.6	775.3	805.3	796.8	676.9	520.6	484.1	536.2	538.8
75°	582.5	593.5	635.2	686.0	719.3	716.0	611.1	454.8	419.6	463.9	462.6
77.5°	489.3	495.2	536.2	585.7	615.7	612.4	523.8	381.8	344.7	383.7	385.0
80°	381.8	386.3	425.4	468.4	494.5	495.8	420.9	300.3	266.5	296.4	298.4
82.5°	268.4	273.6	308.2	346.6	372.7	376.6	320.5	217.0	183.7	203.9	202.6
85°	144.6	147.2	174.6	211.1	240.4	247.6	205.9	131.6	102.9	106.8	104.2
87.5°	32.6	33.9	42.3	50.2	63.8	70.4	59.3	43.7	29.3	20.8	13.0
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: SP1-2411-284-4

Test Date: 11/22/2024

Luminaire Tested: TTN-D0-830-U-WQ

Data in this report applies to families of products including TTN-D0-830-U-WQ

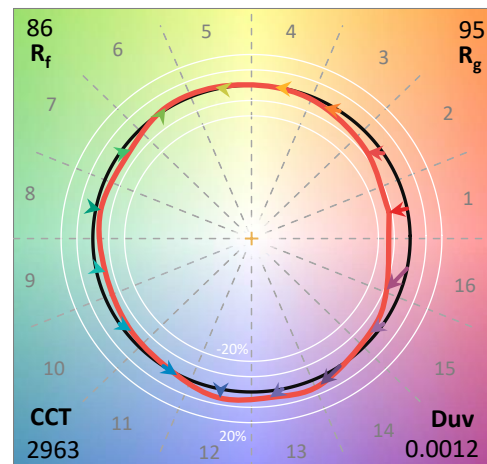
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2411-284-4
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 11/22/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: MCGRAW EDISON
 Catalog Number: **TTN-D0-830-U-WQ**
 Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE. 3000K, 80 CRI LEDS AND WIDE DISTRIBUTION

Spectral Parameters

CCT (K): 2963
 CIE u' : 0.2515
 CIE v' : 0.5238
 Duv: 0.0012
 CIE x: 0.4414
 CIE y: 0.4086
 CIE z: 0.1501
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 582
 Purity: 55.12798
 R_f: 86.1
 R_g: 94.9

CRI (Ra): 82.9
 R1: 81.4
 R2: 91.9
 R3: 95.2
 R4: 81.6
 R5: 82.3
 R6: 91.4
 R7: 82.0
 R8: 57.2
 R9: 3.9
 R10: 82.5
 R11: 82.3
 R12: 76.5
 R13: 83.9
 R14: 97.8
 R15: 72.6



Test Conditions

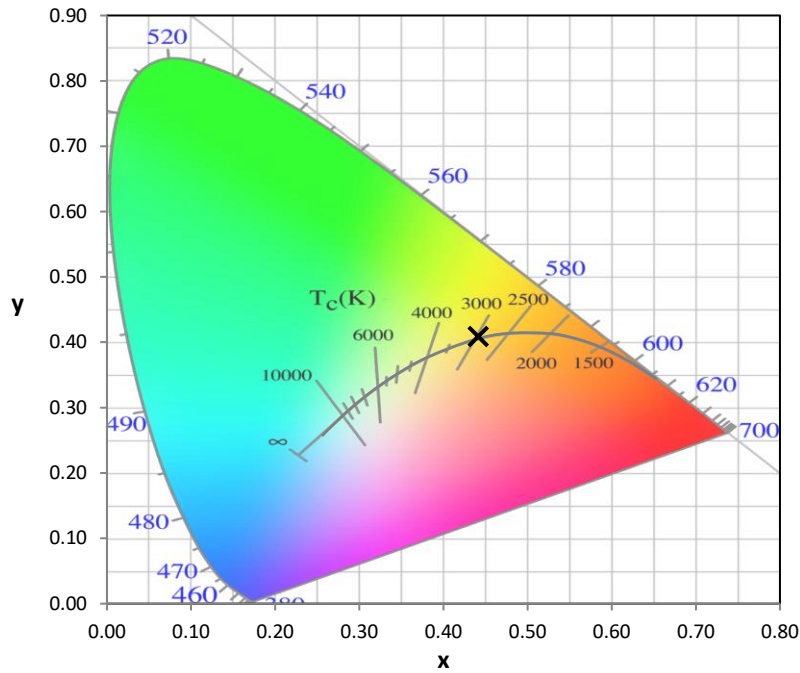
Stabilization Time: 37M
 Operation Time: 1H 37M
 Sphere Temperature (°C): 25.0

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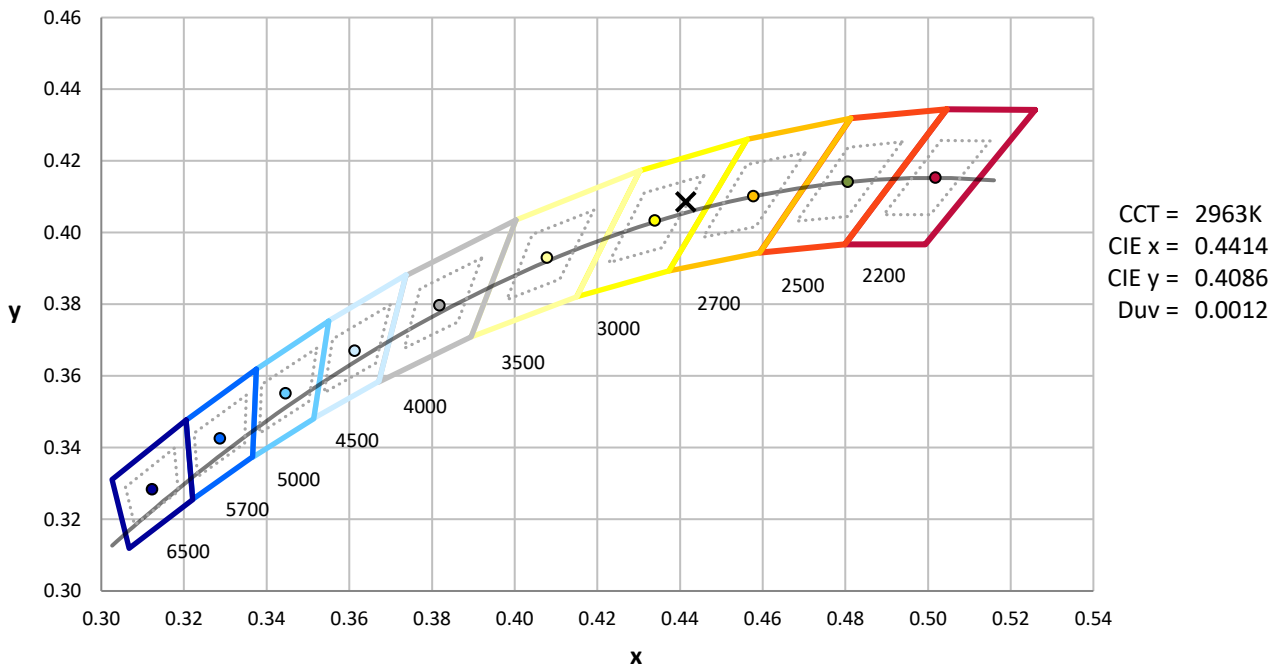
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085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

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CIE 1931 Chromaticity Diagram



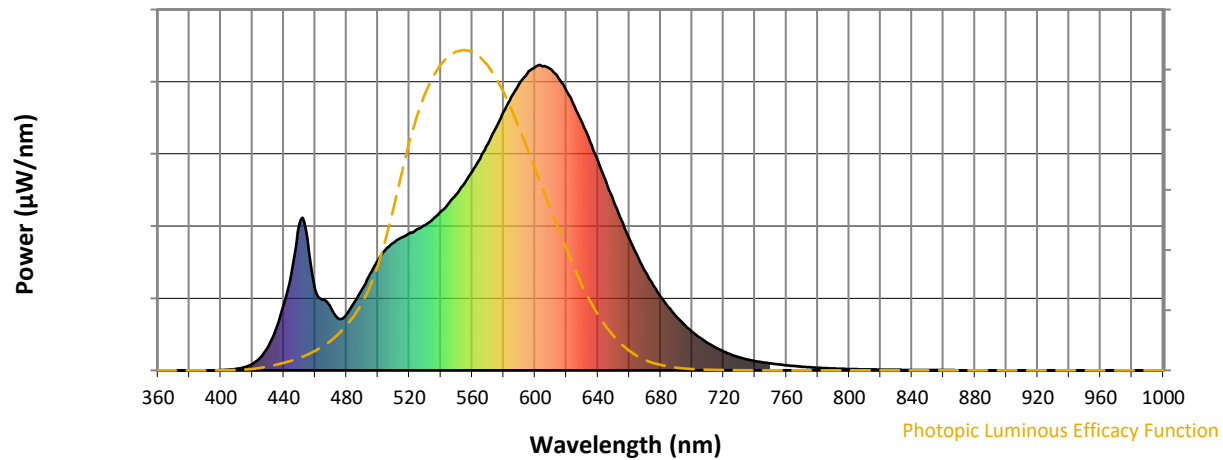
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

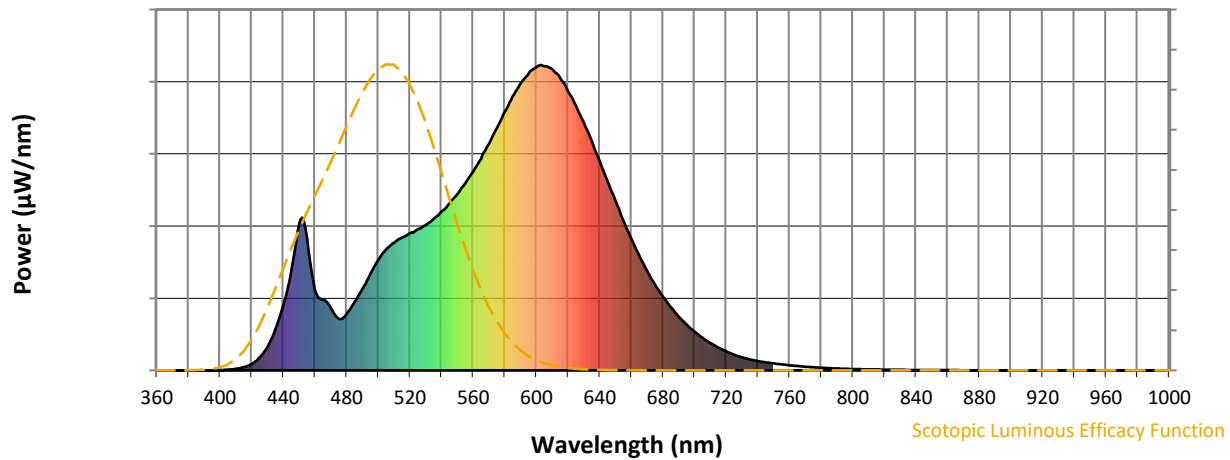


Photopic Lumens: NR

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	267	NR	620	915	NR	750	23	NR	880	0	NR
365	0	NR	495	315	NR	625	866	NR	755	20	NR	885	0	NR
370	0	NR	500	360	NR	630	811	NR	760	17	NR	890	0	NR
375	0	NR	505	396	NR	635	750	NR	765	14	NR	895	0	NR
380	0	NR	510	418	NR	640	686	NR	770	12	NR	900	0	NR
385	0	NR	515	435	NR	645	619	NR	775	10	NR	905	0	NR
390	0	NR	520	448	NR	650	554	NR	780	9	NR	910	0	NR
395	0	NR	525	462	NR	655	491	NR	785	7	NR	915	0	NR
400	1	NR	530	476	NR	660	431	NR	790	6	NR	920	0	NR
405	2	NR	535	495	NR	665	376	NR	795	5	NR	925	0	NR
410	5	NR	540	520	NR	670	325	NR	800	4	NR	930	0	NR
415	10	NR	545	547	NR	675	280	NR	805	4	NR	935	0	NR
420	21	NR	550	576	NR	680	241	NR	810	3	NR	940	0	NR
425	42	NR	555	612	NR	685	207	NR	815	3	NR	945	0	NR
430	77	NR	560	651	NR	690	176	NR	820	2	NR	950	0	NR
435	135	NR	565	693	NR	695	149	NR	825	2	NR	955	0	NR
440	215	NR	570	741	NR	700	127	NR	830	2	NR	960	0	NR
445	321	NR	575	793	NR	705	107	NR	835	2	NR	965	0	NR
450	479	NR	580	847	NR	710	89	NR	840	1	NR	970	0	NR
455	432	NR	585	897	NR	715	75	NR	845	1	NR	975	0	NR
460	265	NR	590	940	NR	720	62	NR	850	1	NR	980	0	NR
465	231	NR	595	971	NR	725	51	NR	855	1	NR	985	0	NR
470	204	NR	600	993	NR	730	43	NR	860	1	NR	990	0	NR
475	168	NR	605	996	NR	735	36	NR	865	1	NR	995	0	NR
480	183	NR	610	986	NR	740	31	NR	870	1	NR	1000	0	NR
485	223	NR	615	957	NR	745	26	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



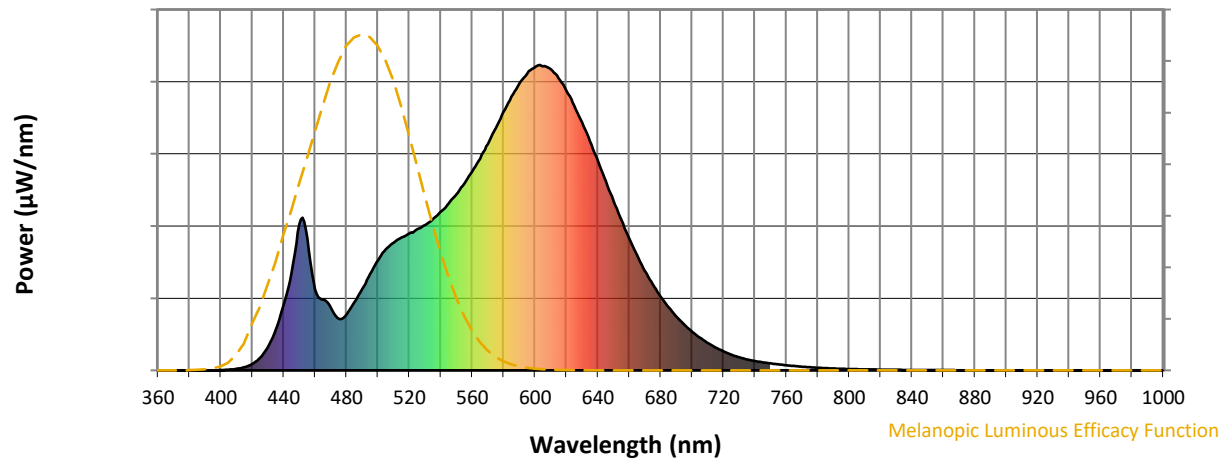
Scotopic Lumens: NR

S/P: 1.34

λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (Φ/nm)
360	0	NR	490	267	NR	620	915	NR	750	23	NR	880	0	NR
365	0	NR	495	315	NR	625	866	NR	755	20	NR	885	0	NR
370	0	NR	500	360	NR	630	811	NR	760	17	NR	890	0	NR
375	0	NR	505	396	NR	635	750	NR	765	14	NR	895	0	NR
380	0	NR	510	418	NR	640	686	NR	770	12	NR	900	0	NR
385	0	NR	515	435	NR	645	619	NR	775	10	NR	905	0	NR
390	0	NR	520	448	NR	650	554	NR	780	9	NR	910	0	NR
395	0	NR	525	462	NR	655	491	NR	785	7	NR	915	0	NR
400	1	NR	530	476	NR	660	431	NR	790	6	NR	920	0	NR
405	2	NR	535	495	NR	665	376	NR	795	5	NR	925	0	NR
410	5	NR	540	520	NR	670	325	NR	800	4	NR	930	0	NR
415	10	NR	545	547	NR	675	280	NR	805	4	NR	935	0	NR
420	21	NR	550	576	NR	680	241	NR	810	3	NR	940	0	NR
425	42	NR	555	612	NR	685	207	NR	815	3	NR	945	0	NR
430	77	NR	560	651	NR	690	176	NR	820	2	NR	950	0	NR
435	135	NR	565	693	NR	695	149	NR	825	2	NR	955	0	NR
440	215	NR	570	741	NR	700	127	NR	830	2	NR	960	0	NR
445	321	NR	575	793	NR	705	107	NR	835	2	NR	965	0	NR
450	479	NR	580	847	NR	710	89	NR	840	1	NR	970	0	NR
455	432	NR	585	897	NR	715	75	NR	845	1	NR	975	0	NR
460	265	NR	590	940	NR	720	62	NR	850	1	NR	980	0	NR
465	231	NR	595	971	NR	725	51	NR	855	1	NR	985	0	NR
470	204	NR	600	993	NR	730	43	NR	860	1	NR	990	0	NR
475	168	NR	605	996	NR	735	36	NR	865	1	NR	995	0	NR
480	183	NR	610	986	NR	740	31	NR	870	1	NR	1000	0	NR
485	223	NR	615	957	NR	745	26	NR	875	0	NR			

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Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 2.58

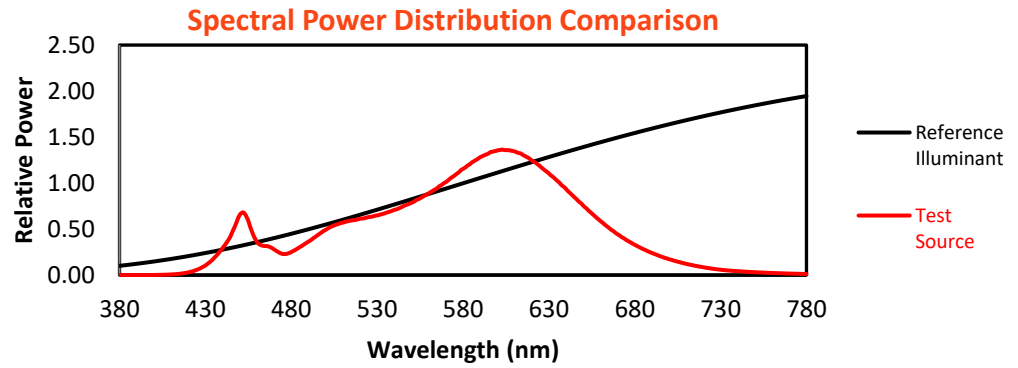
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	267	NR	620	915	NR	750	23	NR	880	0	NR
365	0	NR	495	315	NR	625	866	NR	755	20	NR	885	0	NR
370	0	NR	500	360	NR	630	811	NR	760	17	NR	890	0	NR
375	0	NR	505	396	NR	635	750	NR	765	14	NR	895	0	NR
380	0	NR	510	418	NR	640	686	NR	770	12	NR	900	0	NR
385	0	NR	515	435	NR	645	619	NR	775	10	NR	905	0	NR
390	0	NR	520	448	NR	650	554	NR	780	9	NR	910	0	NR
395	0	NR	525	462	NR	655	491	NR	785	7	NR	915	0	NR
400	1	NR	530	476	NR	660	431	NR	790	6	NR	920	0	NR
405	2	NR	535	495	NR	665	376	NR	795	5	NR	925	0	NR
410	5	NR	540	520	NR	670	325	NR	800	4	NR	930	0	NR
415	10	NR	545	547	NR	675	280	NR	805	4	NR	935	0	NR
420	21	NR	550	576	NR	680	241	NR	810	3	NR	940	0	NR
425	42	NR	555	612	NR	685	207	NR	815	3	NR	945	0	NR
430	77	NR	560	651	NR	690	176	NR	820	2	NR	950	0	NR
435	135	NR	565	693	NR	695	149	NR	825	2	NR	955	0	NR
440	215	NR	570	741	NR	700	127	NR	830	2	NR	960	0	NR
445	321	NR	575	793	NR	705	107	NR	835	2	NR	965	0	NR
450	479	NR	580	847	NR	710	89	NR	840	1	NR	970	0	NR
455	432	NR	585	897	NR	715	75	NR	845	1	NR	975	0	NR
460	265	NR	590	940	NR	720	62	NR	850	1	NR	980	0	NR
465	231	NR	595	971	NR	725	51	NR	855	1	NR	985	0	NR
470	204	NR	600	993	NR	730	43	NR	860	1	NR	990	0	NR
475	168	NR	605	996	NR	735	36	NR	865	1	NR	995	0	NR
480	183	NR	610	986	NR	740	31	NR	870	1	NR	1000	0	NR
485	223	NR	615	957	NR	745	26	NR	875	0	NR			

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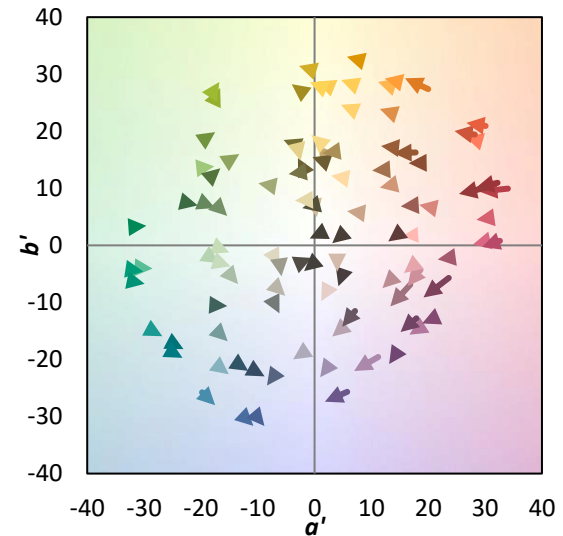
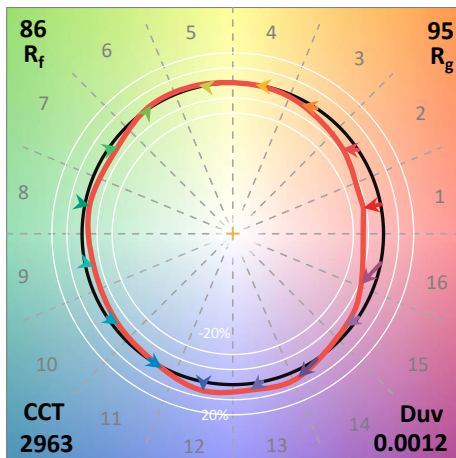
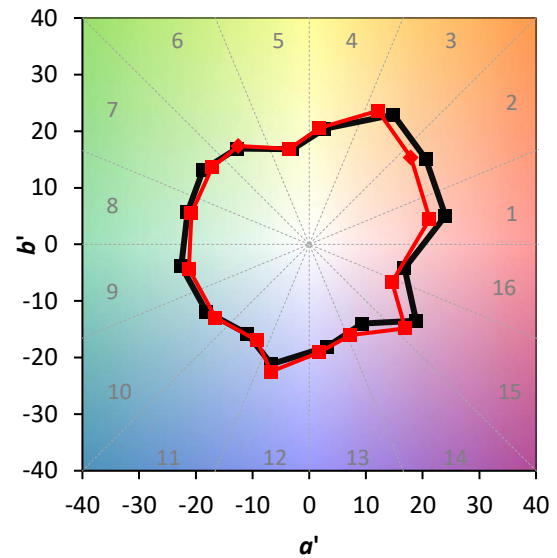
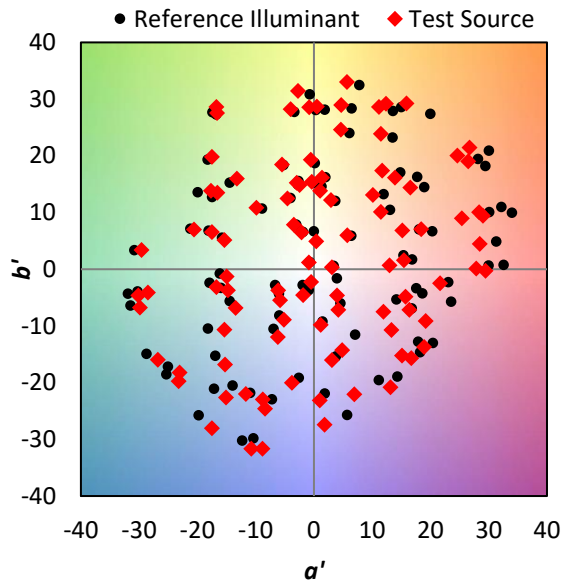
TM-30-18

Summary

$R_f = 86.1$
 $R_g = 94.9$
 $CIE\ R_a = 82.9$
 $R_g = 3.9$

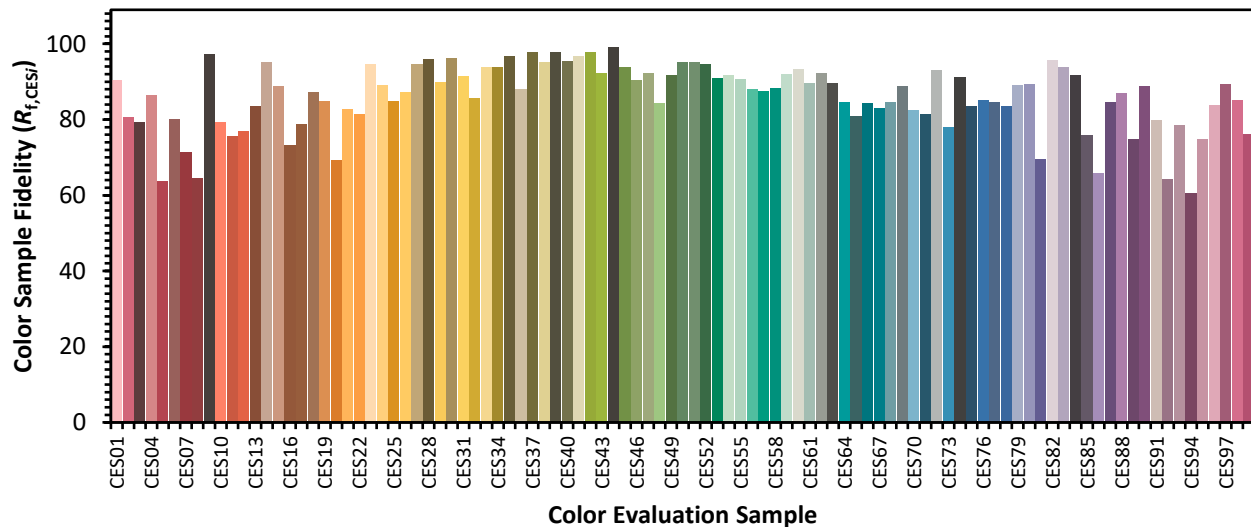


Color Vector Graphics

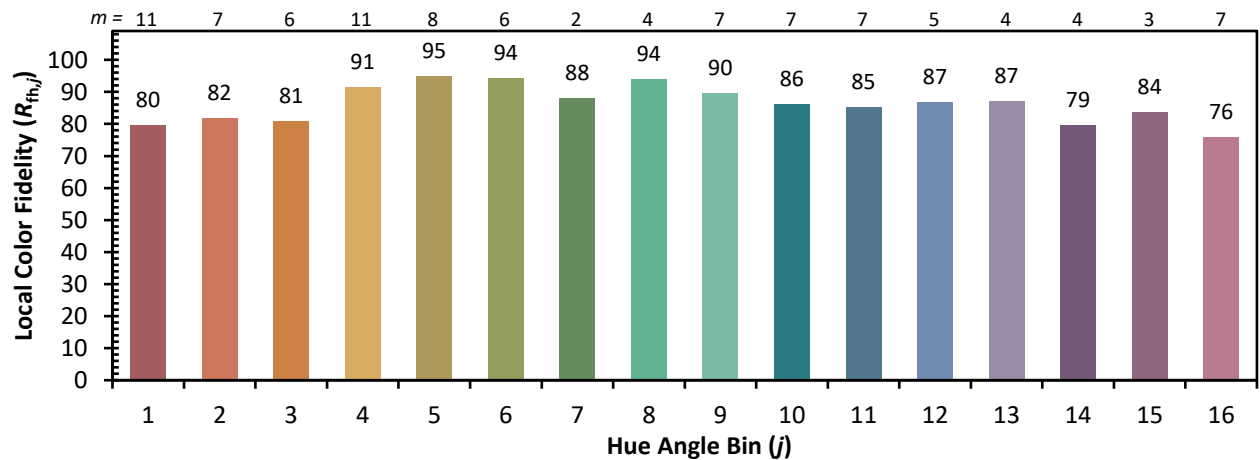
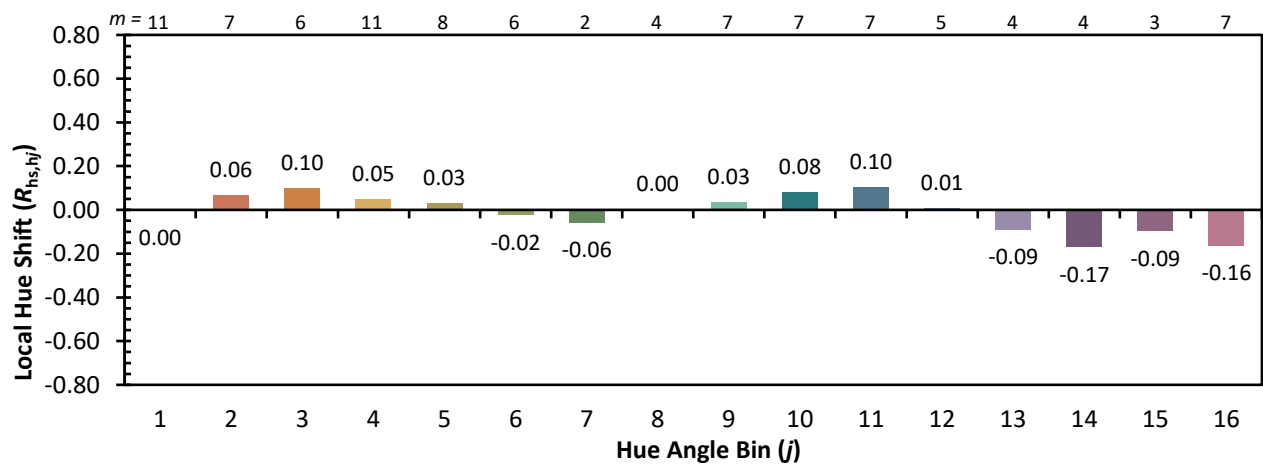
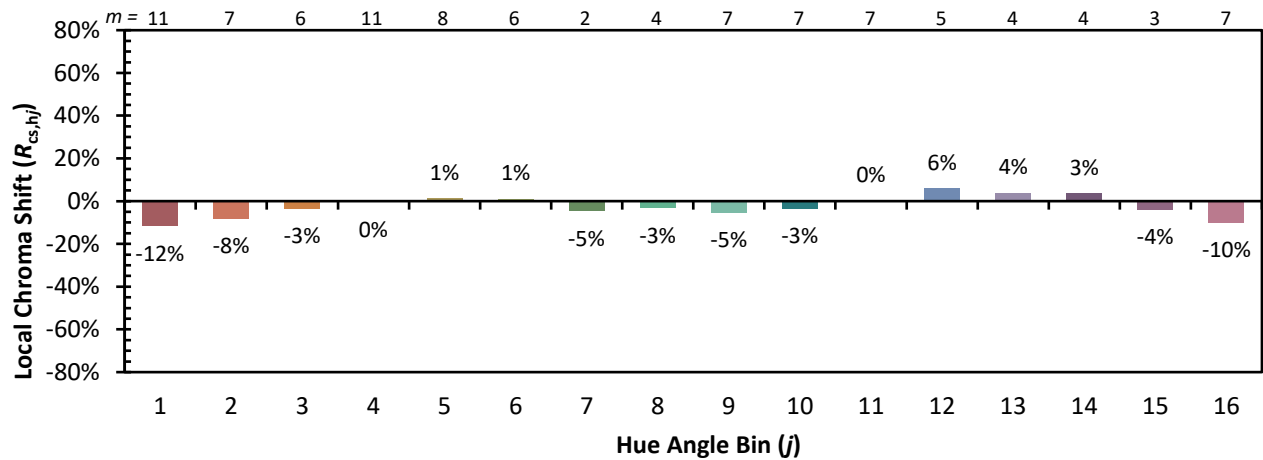


Individual Sample Fidelity Index ($R_{f,i}$)

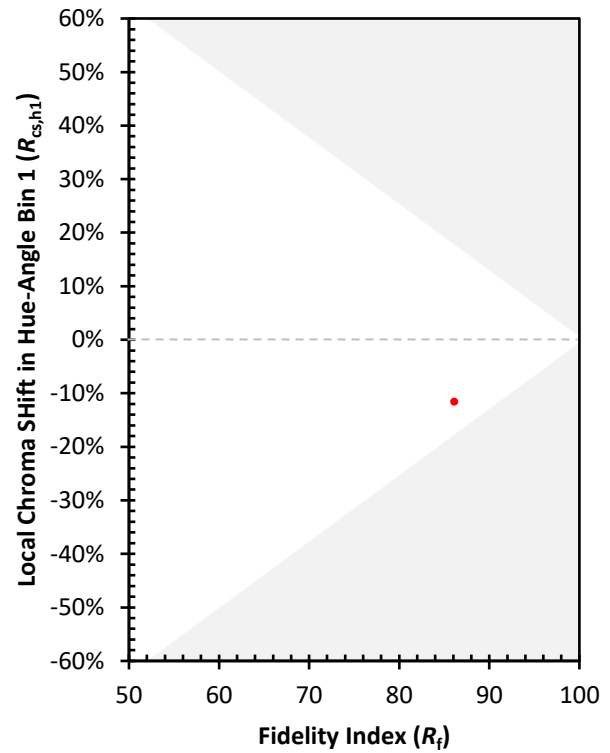
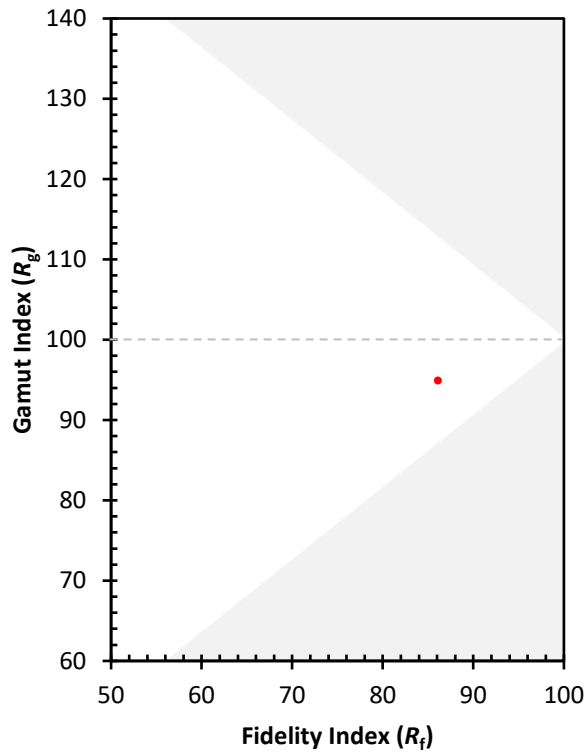
CES01 = 86	CES26 = 87	CES51 = 95	CES76 = 85
CES02 = 63	CES27 = 95	CES52 = 95	CES77 = 85
CES03 = 31	CES28 = 96	CES53 = 91	CES78 = 83
CES04 = 70	CES29 = 90	CES54 = 92	CES79 = 89
CES05 = 50	CES30 = 96	CES55 = 91	CES80 = 89
CES06 = 51	CES31 = 92	CES56 = 88	CES81 = 70
CES07 = 42	CES32 = 86	CES57 = 87	CES82 = 96
CES08 = 41	CES33 = 94	CES58 = 88	CES83 = 94
CES09 = 29	CES34 = 94	CES59 = 92	CES84 = 92
CES10 = 76	CES35 = 97	CES60 = 93	CES85 = 76
CES11 = 59	CES36 = 88	CES61 = 90	CES86 = 66
CES12 = 65	CES37 = 98	CES62 = 92	CES87 = 85
CES13 = 44	CES38 = 95	CES63 = 90	CES88 = 87
CES14 = 74	CES39 = 98	CES64 = 85	CES89 = 75
CES15 = 72	CES40 = 96	CES65 = 81	CES90 = 89
CES16 = 48	CES41 = 97	CES66 = 84	CES91 = 80
CES17 = 50	CES42 = 98	CES67 = 83	CES92 = 64
CES18 = 57	CES43 = 92	CES68 = 85	CES93 = 79
CES19 = 72	CES44 = 99	CES69 = 89	CES94 = 61
CES20 = 67	CES45 = 94	CES70 = 83	CES95 = 75
CES21 = 87	CES46 = 91	CES71 = 81	CES96 = 84
CES22 = 79	CES47 = 92	CES72 = 93	CES97 = 89
CES23 = 92	CES48 = 84	CES73 = 78	CES98 = 85
CES24 = 91	CES49 = 92	CES74 = 91	CES99 = 76
CES25 = 72	CES50 = 95	CES75 = 84	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)