

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: P1445233

Luminaire Tested: TPTN-VA0-750-U-DL-GM

Issue Date: 05/21/2026

Test Information

Test Method: LM-79-2024
Report Number: P1445233
Test Lab: INNOVATION CENTER(G1)
Issue Date: 5/21/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: MCGRAW-EDISON
Catalog Number: TPTN-VA0-750-U-DL-GM
Description: TOPTIER NANO SPIDER MOUNT VISUAL COMFORT LED LUMINAIRE 9W 70CRI 5000K w/
DRIVE LANE TYPE IV DISTRIBUTION OPTIC
Light Source: 5000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 803.3 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Luminous Opening: Circular (Dia: 0.71' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

Input Watts (W): 8.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.98
Total Harmonic Distortion (THDi): 29.6%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

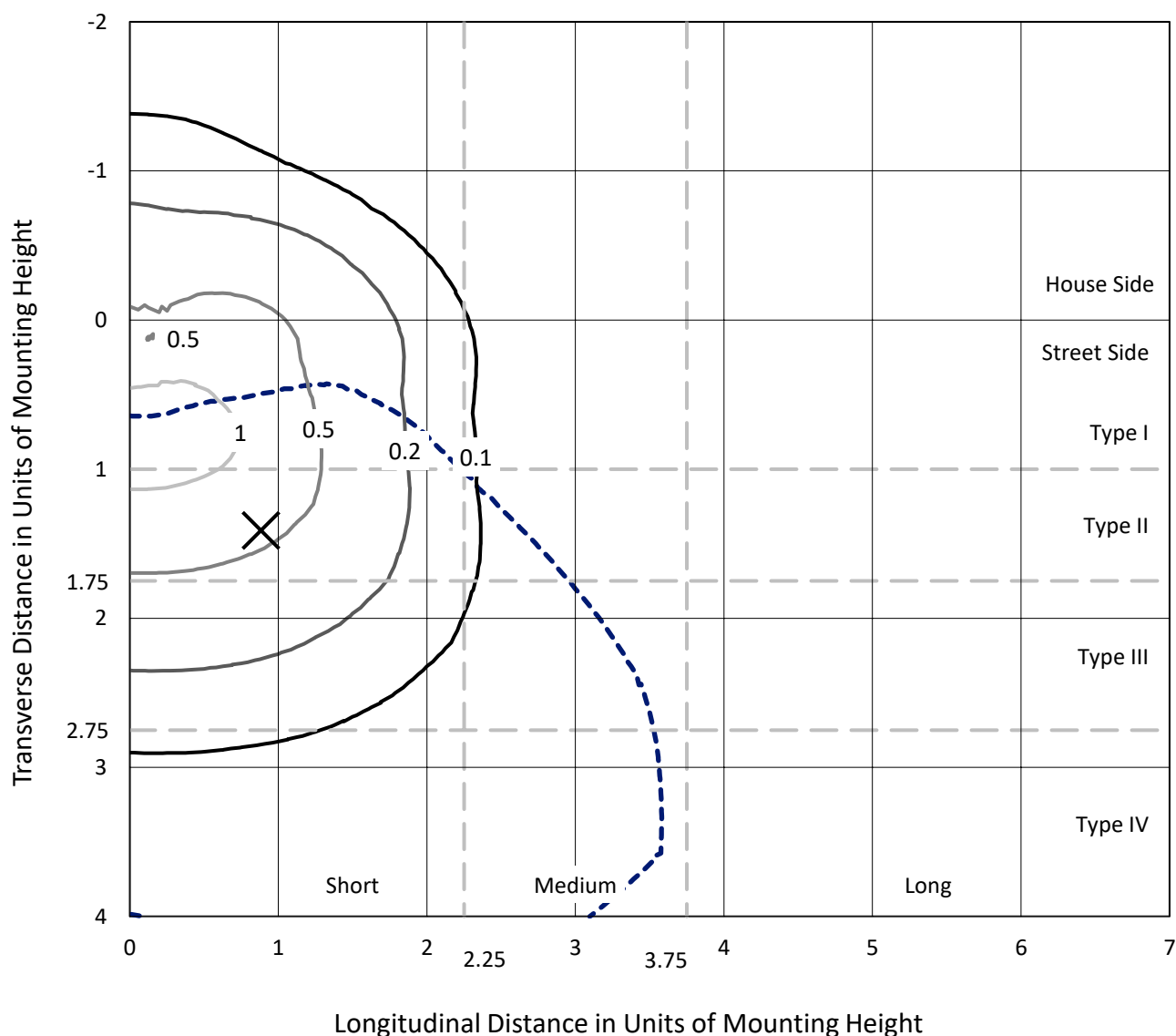
REPORT NUMBER: P1445233

CATALOG NUMBER: TPTN-VA0-750-U-DL-GM

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



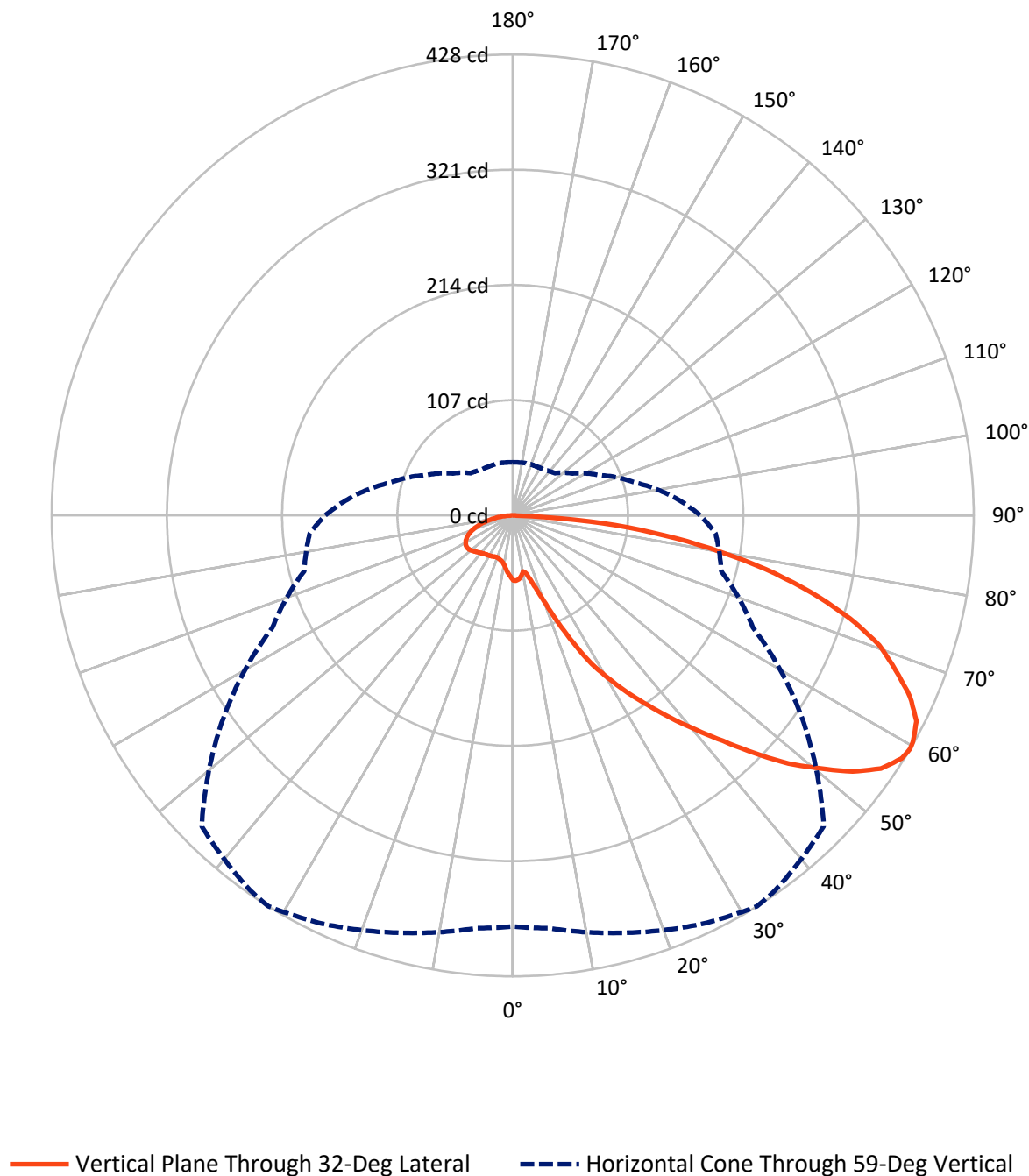
Based on 10 foot mounting height. Maximum calculated value = 1.3 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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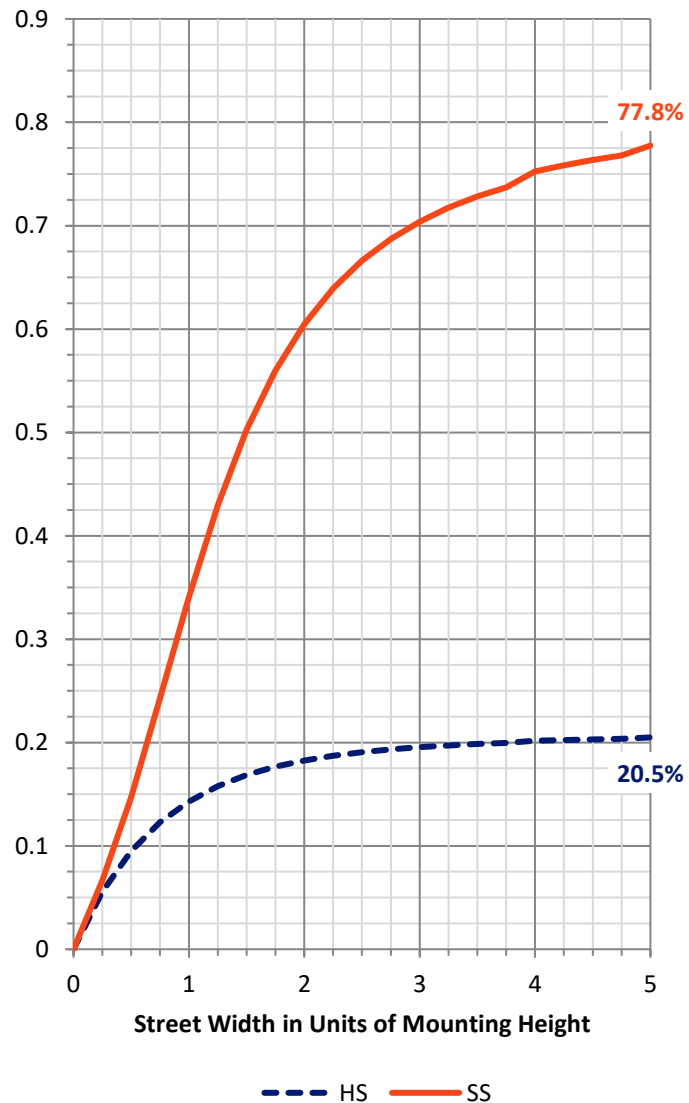
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	167.0	0.0	167.0
	% Fixture	20.8	0.0	20.8
Street Side	Lumens	636.3	0.0	636.3
	% Fixture	79.2	0.0	79.2
Total	Lumens	803.3	0.0	803.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.2	0.7
10°-20°	15.8	2.0
20°-30°	38.9	4.8
30°-40°	76.4	9.5
40°-50°	127.1	15.8
50°-60°	179.4	22.3
60°-70°	188.5	23.5
70°-80°	135.9	16.9
80°-90°	36.0	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°	803.3	100.0
0°-180°	803.3	100.0

Coefficient of Utilization



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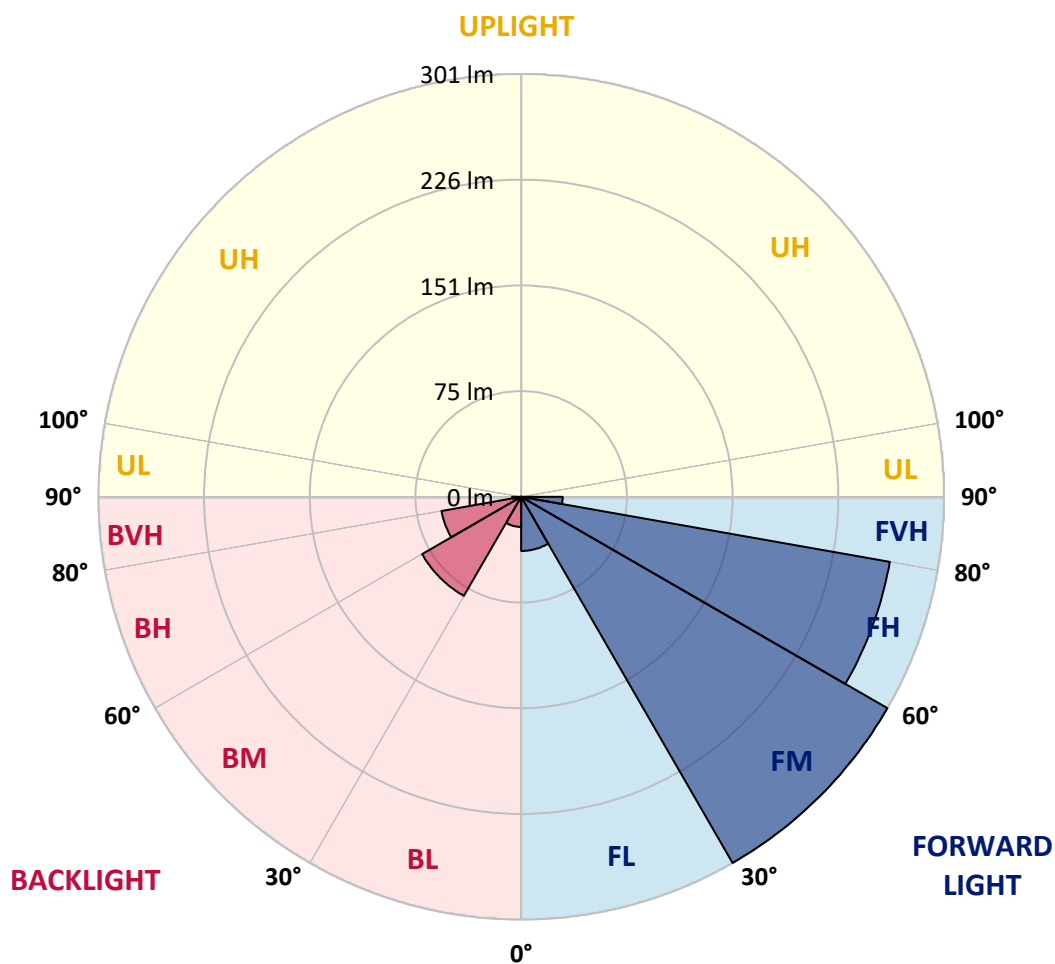
CATALOG NUMBER: TPTN-VA0-750-U-DL-GM

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	38.6	4.8			
FM	(30°-60°)	301.4	37.5			
FH	(60°-80°)	266.8	33.2			G0/660
FVH	(80°-90°)	29.6	3.7			G1/100
BL	(0°-30°)	21.5	2.7	B0/110		
BM	(30°-60°)	81.6	10.2	B0/220		
BH	(60°-80°)	57.6	7.2	B0/110		G0/110
BVH	(80°-90°)	6.4	0.8			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type IV Short



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CATALOG NUMBER: TPTN-VA0-750-U-DL-GM

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2
2.5°	61.1	61.0	61.0	60.8	60.7	60.7	60.5	60.2	59.7	59.3	59.0
5°	60.5	60.4	60.0	59.9	59.6	59.4	59.1	58.5	58.2	58.3	58.3
7.5°	57.9	58.0	57.7	57.3	56.8	56.6	55.9	55.7	55.5	55.1	55.4
10°	57.4	57.6	56.2	54.6	52.9	52.3	51.7	51.8	52.8	53.4	54.0
12.5°	61.3	60.7	59.4	57.3	55.1	54.5	52.8	52.8	53.5	54.1	54.8
15°	67.2	67.0	65.6	63.9	62.1	61.3	58.2	56.8	56.9	57.4	57.9
17.5°	75.9	76.3	76.8	74.6	72.5	70.9	66.4	63.3	62.1	62.2	62.2
20°	91.4	91.5	92.6	90.8	87.4	85.2	78.0	72.3	69.5	68.9	68.6
22.5°	113.6	113.0	113.0	112.5	108.0	105.4	94.0	83.8	78.8	77.1	77.0
25°	139.3	139.0	139.6	137.3	131.4	129.6	113.9	98.8	90.0	87.5	85.6
27.5°	164.5	164.8	165.1	160.9	155.9	152.7	134.5	116.7	102.4	97.9	94.5
30°	188.2	189.0	184.9	179.1	175.5	171.4	151.7	130.8	114.0	106.3	103.0
32.5°	211.6	210.9	203.6	199.1	196.1	192.1	169.1	145.8	125.8	115.0	110.6
35°	234.4	232.3	223.1	218.8	216.3	212.9	190.1	161.4	137.3	123.7	118.4
37.5°	255.7	254.5	243.9	241.7	238.5	235.8	212.7	177.7	149.7	133.9	127.4
40°	275.6	275.7	268.1	264.5	261.3	258.8	235.8	194.7	162.6	144.5	137.3
42.5°	296.2	296.0	291.7	289.4	286.0	284.1	260.0	213.7	176.1	155.6	147.2
45°	315.6	317.0	317.3	315.9	314.5	312.8	289.7	235.5	192.1	166.9	158.1
47.5°	338.4	340.1	342.6	343.1	343.8	341.0	318.5	256.2	207.6	178.1	168.3
50°	355.3	357.0	364.9	367.4	368.8	367.6	345.8	278.5	221.6	188.7	176.3
52.5°	372.1	373.0	384.2	392.9	394.6	392.5	372.7	299.8	235.2	197.1	184.3
55°	382.0	383.4	397.8	410.7	414.3	413.5	396.0	314.7	243.6	202.9	189.4
57.5°	382.9	385.4	402.0	417.5	425.4	423.4	406.7	324.6	246.1	202.3	189.6
59°	381.2	384.2	400.8	417.8	427.5	424.5	407.8	327.5	245.6	200.2	188.8
60°	379.8	382.8	398.6	416.8	426.4	423.9	407.6	328.9	243.6	198.9	188.2
62.5°	371.4	376.6	392.2	408.4	420.2	421.6	404.5	329.6	239.4	194.9	184.9
65°	351.7	356.7	377.3	397.0	404.8	409.6	393.0	321.5	229.8	186.7	174.2
67.5°	327.1	331.3	351.4	377.3	382.8	387.1	377.0	305.5	217.5	170.7	161.1
70°	301.8	306.9	323.2	350.3	360.6	363.7	356.4	288.1	200.0	154.7	148.2
72.5°	267.8	272.0	291.4	316.5	327.2	331.1	325.2	265.0	177.8	138.6	132.5
75°	229.9	232.4	250.6	276.0	286.3	290.1	288.3	235.5	153.9	118.4	112.2
77.5°	184.2	189.8	204.8	225.1	239.7	240.5	240.3	199.7	126.6	93.2	91.1
80°	137.5	142.4	156.7	175.9	186.0	188.8	188.5	157.5	98.2	71.4	67.8
82.5°	87.0	90.1	105.0	120.6	131.1	133.6	136.4	113.7	68.4	47.3	43.3
85°	34.6	34.4	47.3	63.9	71.7	75.9	77.9	66.3	37.1	21.1	17.8
87.5°	2.5	2.6	3.3	4.0	4.2	4.5	5.1	6.5	5.1	4.5	2.3
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: P1445233

CATALOG NUMBER: TPTN-VA0-750-U-DL-GM

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2
2.5°	58.8	58.6	58.0	57.7	57.3	57.1	56.9	56.6	56.5	56.3	56.5
5°	57.9	57.9	57.3	56.8	55.7	54.9	54.1	53.1	52.3	51.8	51.7
7.5°	55.7	55.9	55.7	54.8	53.8	52.6	50.7	48.9	47.5	46.7	46.4
10°	53.8	54.1	54.0	53.4	51.8	49.8	47.5	45.0	42.8	41.4	41.3
12.5°	54.8	54.8	54.3	53.1	51.0	48.4	45.5	42.2	39.7	38.2	37.9
15°	57.9	57.6	56.2	54.1	51.0	47.8	44.2	40.5	37.5	35.8	35.7
17.5°	62.4	61.8	59.3	55.5	51.5	47.5	43.6	39.4	35.8	33.7	33.4
20°	68.3	66.9	63.0	57.4	52.4	47.8	43.0	38.3	34.8	32.3	31.7
22.5°	75.6	73.2	67.2	59.7	53.7	48.4	43.1	38.0	34.1	31.8	31.7
25°	83.2	80.1	72.0	62.5	55.1	48.9	43.3	38.6	34.8	33.0	32.7
27.5°	90.9	87.2	77.1	65.8	56.6	49.7	43.9	39.6	36.6	35.2	35.1
30°	98.5	93.6	81.6	68.6	58.2	50.1	44.4	39.6	37.5	36.5	36.3
32.5°	105.5	99.5	85.8	71.5	59.7	51.0	44.8	40.0	38.2	37.9	37.7
35°	113.0	106.4	90.1	74.0	61.3	51.8	45.3	40.5	39.1	39.1	39.1
37.5°	121.0	113.4	94.8	76.8	62.8	53.2	45.9	41.6	40.3	40.7	40.7
40°	129.6	120.9	99.6	79.8	64.2	54.0	46.4	42.7	41.6	41.9	42.0
42.5°	138.4	128.2	104.6	82.4	66.1	54.9	47.3	44.1	43.3	43.6	43.6
45°	147.4	135.9	109.2	85.2	67.6	55.9	48.4	45.6	45.0	45.2	45.2
47.5°	156.2	142.9	113.4	87.7	69.0	56.6	49.5	47.2	46.7	46.9	46.7
50°	163.7	149.0	117.1	89.5	70.4	57.4	50.7	48.7	48.4	48.1	47.9
52.5°	170.2	154.4	120.1	90.9	71.1	57.7	51.8	50.3	50.0	49.3	49.2
55°	173.8	156.9	120.9	91.2	70.6	57.4	52.1	51.0	50.7	50.0	50.0
57.5°	174.6	156.9	119.2	89.8	69.0	56.3	52.0	50.7	50.4	49.7	49.7
59°	173.8	155.9	117.6	88.3	67.8	55.4	51.4	50.4	50.0	49.3	49.3
60°	173.0	155.3	116.5	86.7	67.0	54.8	50.7	50.0	49.5	49.0	49.0
62.5°	169.6	151.7	113.6	82.7	64.4	52.4	49.3	48.9	48.6	48.1	47.9
65°	160.1	143.2	107.4	78.2	60.4	49.7	47.0	46.9	46.7	45.9	45.6
67.5°	149.0	132.7	98.4	72.5	55.2	46.4	44.2	44.2	43.6	43.0	43.1
70°	137.5	122.6	89.1	65.3	49.3	42.2	40.5	40.7	40.0	39.9	40.0
72.5°	122.3	108.3	78.8	56.6	43.3	37.4	36.0	36.5	36.3	36.2	36.2
75°	103.0	91.9	66.4	47.8	36.6	32.1	31.3	31.5	31.7	31.5	31.5
77.5°	83.9	74.6	52.6	37.7	29.0	25.9	25.8	26.5	26.7	26.5	26.7
80°	62.2	54.9	38.3	27.6	21.6	19.9	20.2	21.3	21.6	21.6	21.9
82.5°	40.0	34.4	24.8	17.8	14.4	14.0	14.9	16.0	16.4	16.4	16.4
85°	15.8	14.3	11.5	8.8	8.2	8.8	9.9	10.6	11.3	11.3	11.2
87.5°	0.9	2.3	3.6	3.6	3.6	3.9	3.9	4.0	4.2	4.0	4.0
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: SP1-2411-284-3

Test Date: 11/21/2024

Luminaire Tested: TTN-D0-750-U-WQ

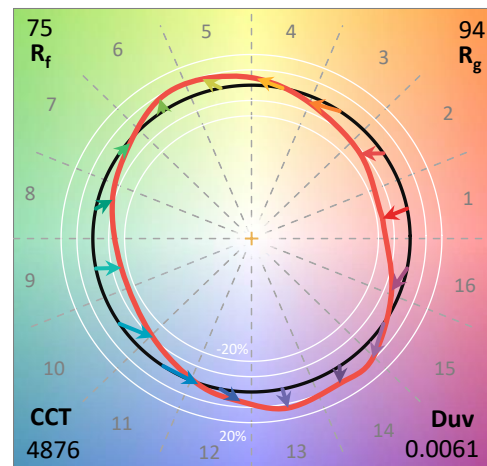
Data in this report applies to families of products including TTN-D0-750-U-WQ

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2411-284-3
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 11/21/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: MCGRAW EDISON
 Catalog Number: **TTN-D0-750-U-WQ**
 Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE. 5000K, 70 CRI LEDS AND WIDE DISTRIBUTION

Spectral Parameters

CCT (K):	4876	CRI (Ra):	72.6		
CIE u':	0.2086	R1:	69.5	R9:	-24.6
CIE v':	0.4932	R2:	77.0	R10:	44.8
Duv:	0.0061	R3:	82.2	R11:	68.2
CIE x:	0.3502	R4:	72.6	R12:	36.1
CIE y:	0.3680	R5:	69.3	R13:	70.5
CIE z:	0.2818	R6:	67.6	R14:	89.9
Peak Wavelength (nm):	451	R7:	83.7	R15:	63.1
Dominant Wavelength (nm):	569	R8:	58.6		
Purity:	15.51324				
Rf:	74.6				
Rg:	94.4				



Test Conditions

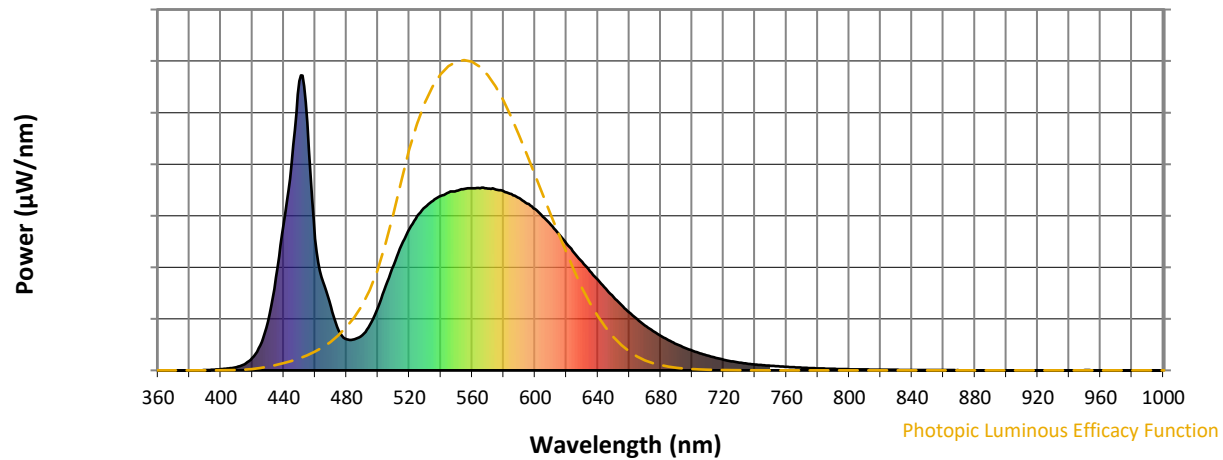
Stabilization Time: 51M
 Operation Time: 1H 51M
 Sphere Temperature (°C): 24.9

REPORT NUMBER: SP1-2411-284-3

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

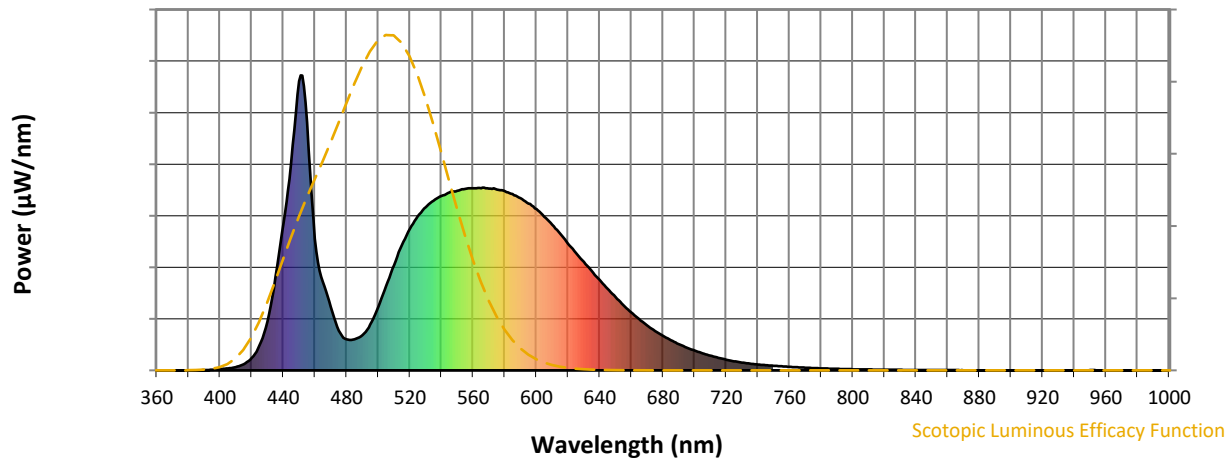


Photopic Lumens: NR

λ (nm)	Power 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	119	NR	620	430	NR	750	16	NR	880	0	NR
365	0	NR	495	156	NR	625	398	NR	755	14	NR	885	0	NR
370	0	NR	500	214	NR	630	368	NR	760	12	NR	890	0	NR
375	0	NR	505	286	NR	635	336	NR	765	11	NR	895	0	NR
380	0	NR	510	357	NR	640	306	NR	770	9	NR	900	0	NR
385	0	NR	515	425	NR	645	276	NR	775	8	NR	905	0	NR
390	1	NR	520	480	NR	650	248	NR	780	7	NR	910	0	NR
395	2	NR	525	523	NR	655	221	NR	785	6	NR	915	0	NR
400	4	NR	530	554	NR	660	196	NR	790	5	NR	920	0	NR
405	7	NR	535	575	NR	665	173	NR	795	4	NR	925	0	NR
410	11	NR	540	592	NR	670	152	NR	800	4	NR	930	0	NR
415	21	NR	545	603	NR	675	133	NR	805	3	NR	935	0	NR
420	42	NR	550	609	NR	680	117	NR	810	3	NR	940	0	NR
425	85	NR	555	615	NR	685	102	NR	815	3	NR	945	0	NR
430	165	NR	560	617	NR	690	89	NR	820	2	NR	950	1	NR
435	316	NR	565	617	NR	695	77	NR	825	2	NR	955	0	NR
440	497	NR	570	616	NR	700	67	NR	830	2	NR	960	0	NR
445	702	NR	575	613	NR	705	58	NR	835	2	NR	965	0	NR
450	981	NR	580	607	NR	710	50	NR	840	1	NR	970	0	NR
455	840	NR	585	598	NR	715	43	NR	845	1	NR	975	0	NR
460	446	NR	590	583	NR	720	36	NR	850	1	NR	980	0	NR
465	300	NR	595	566	NR	725	31	NR	855	1	NR	985	0	NR
470	215	NR	600	546	NR	730	26	NR	860	1	NR	990	0	NR
475	135	NR	605	521	NR	735	23	NR	865	1	NR	995	0	NR
480	105	NR	610	494	NR	740	20	NR	870	1	NR	1000	0	NR
485	106	NR	615	463	NR	745	18	NR	875	0	NR			

REPORT NUMBER: SP1-2411-284-3

Scotopic Flux vs. Wavelength



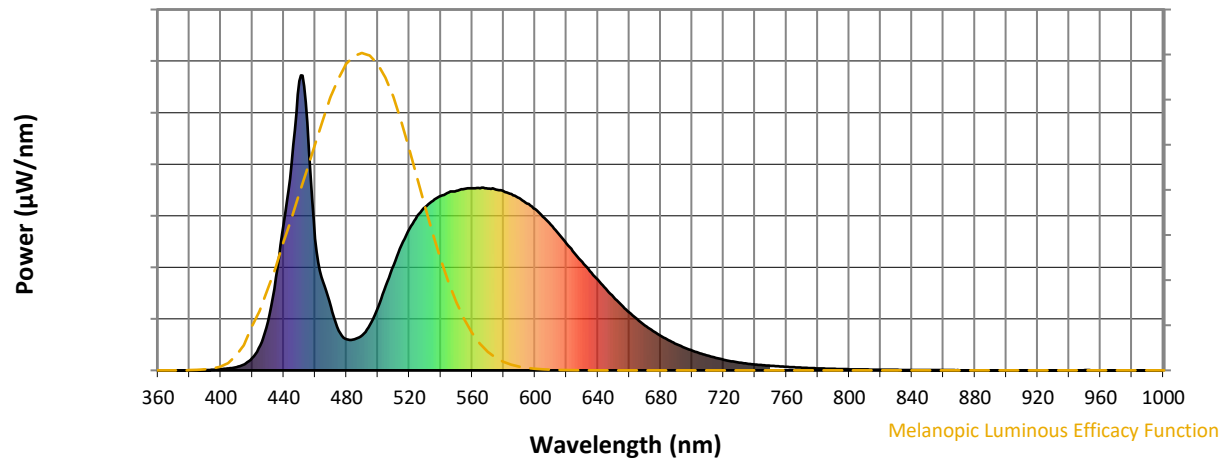
Scotopic Lumens: NR

S/P: 1.74

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	119	NR	620	430	NR	750	16	NR	880	0	NR
365	0	NR	495	156	NR	625	398	NR	755	14	NR	885	0	NR
370	0	NR	500	214	NR	630	368	NR	760	12	NR	890	0	NR
375	0	NR	505	286	NR	635	336	NR	765	11	NR	895	0	NR
380	0	NR	510	357	NR	640	306	NR	770	9	NR	900	0	NR
385	0	NR	515	425	NR	645	276	NR	775	8	NR	905	0	NR
390	1	NR	520	480	NR	650	248	NR	780	7	NR	910	0	NR
395	2	NR	525	523	NR	655	221	NR	785	6	NR	915	0	NR
400	4	NR	530	554	NR	660	196	NR	790	5	NR	920	0	NR
405	7	NR	535	575	NR	665	173	NR	795	4	NR	925	0	NR
410	11	NR	540	592	NR	670	152	NR	800	4	NR	930	0	NR
415	21	NR	545	603	NR	675	133	NR	805	3	NR	935	0	NR
420	42	NR	550	609	NR	680	117	NR	810	3	NR	940	0	NR
425	85	NR	555	615	NR	685	102	NR	815	3	NR	945	0	NR
430	165	NR	560	617	NR	690	89	NR	820	2	NR	950	1	NR
435	316	NR	565	617	NR	695	77	NR	825	2	NR	955	0	NR
440	497	NR	570	616	NR	700	67	NR	830	2	NR	960	0	NR
445	702	NR	575	613	NR	705	58	NR	835	2	NR	965	0	NR
450	981	NR	580	607	NR	710	50	NR	840	1	NR	970	0	NR
455	840	NR	585	598	NR	715	43	NR	845	1	NR	975	0	NR
460	446	NR	590	583	NR	720	36	NR	850	1	NR	980	0	NR
465	300	NR	595	566	NR	725	31	NR	855	1	NR	985	0	NR
470	215	NR	600	546	NR	730	26	NR	860	1	NR	990	0	NR
475	135	NR	605	521	NR	735	23	NR	865	1	NR	995	0	NR
480	105	NR	610	494	NR	740	20	NR	870	1	NR	1000	0	NR
485	106	NR	615	463	NR	745	18	NR	875	0	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: NR

M/P: 3.51

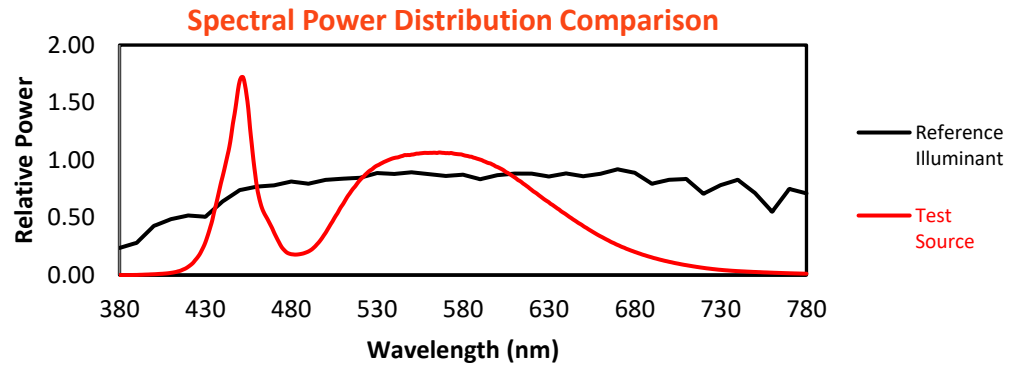
λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)
360	0	NR	490	119	NR	620	430	NR	750	16	NR	880	0	NR
365	0	NR	495	156	NR	625	398	NR	755	14	NR	885	0	NR
370	0	NR	500	214	NR	630	368	NR	760	12	NR	890	0	NR
375	0	NR	505	286	NR	635	336	NR	765	11	NR	895	0	NR
380	0	NR	510	357	NR	640	306	NR	770	9	NR	900	0	NR
385	0	NR	515	425	NR	645	276	NR	775	8	NR	905	0	NR
390	1	NR	520	480	NR	650	248	NR	780	7	NR	910	0	NR
395	2	NR	525	523	NR	655	221	NR	785	6	NR	915	0	NR
400	4	NR	530	554	NR	660	196	NR	790	5	NR	920	0	NR
405	7	NR	535	575	NR	665	173	NR	795	4	NR	925	0	NR
410	11	NR	540	592	NR	670	152	NR	800	4	NR	930	0	NR
415	21	NR	545	603	NR	675	133	NR	805	3	NR	935	0	NR
420	42	NR	550	609	NR	680	117	NR	810	3	NR	940	0	NR
425	85	NR	555	615	NR	685	102	NR	815	3	NR	945	0	NR
430	165	NR	560	617	NR	690	89	NR	820	2	NR	950	1	NR
435	316	NR	565	617	NR	695	77	NR	825	2	NR	955	0	NR
440	497	NR	570	616	NR	700	67	NR	830	2	NR	960	0	NR
445	702	NR	575	613	NR	705	58	NR	835	2	NR	965	0	NR
450	981	NR	580	607	NR	710	50	NR	840	1	NR	970	0	NR
455	840	NR	585	598	NR	715	43	NR	845	1	NR	975	0	NR
460	446	NR	590	583	NR	720	36	NR	850	1	NR	980	0	NR
465	300	NR	595	566	NR	725	31	NR	855	1	NR	985	0	NR
470	215	NR	600	546	NR	730	26	NR	860	1	NR	990	0	NR
475	135	NR	605	521	NR	735	23	NR	865	1	NR	995	0	NR
480	105	NR	610	494	NR	740	20	NR	870	1	NR	1000	0	NR
485	106	NR	615	463	NR	745	18	NR	875	0	NR			

REPORT NUMBER: SP1-2411-284-3

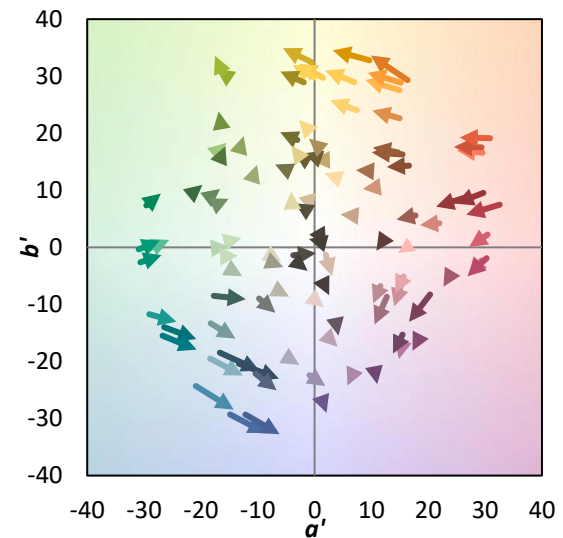
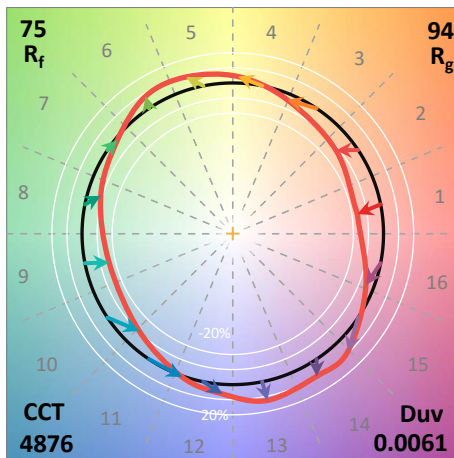
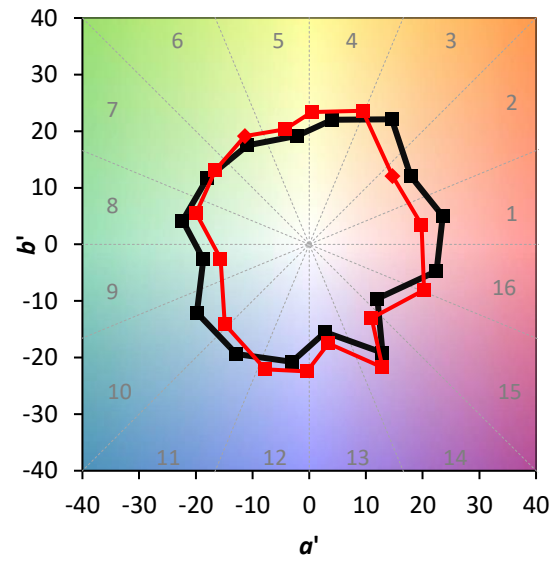
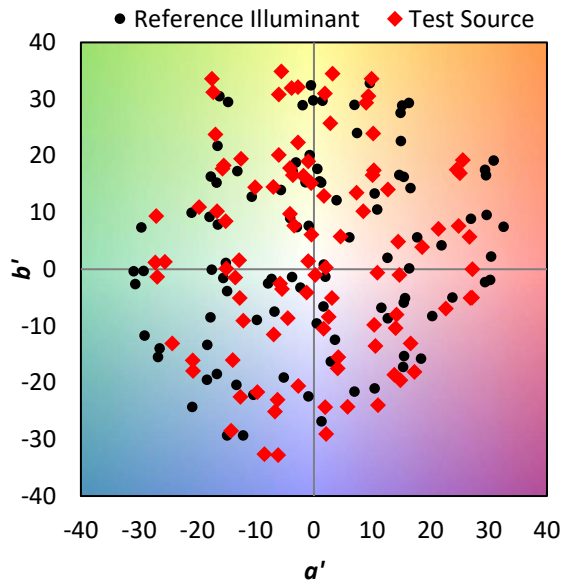
TM-30-18

Summary

$R_f = 74.6$
 $R_g = 94.4$
 $CIE R_a = 72.6$
 $R_g = -24.6$

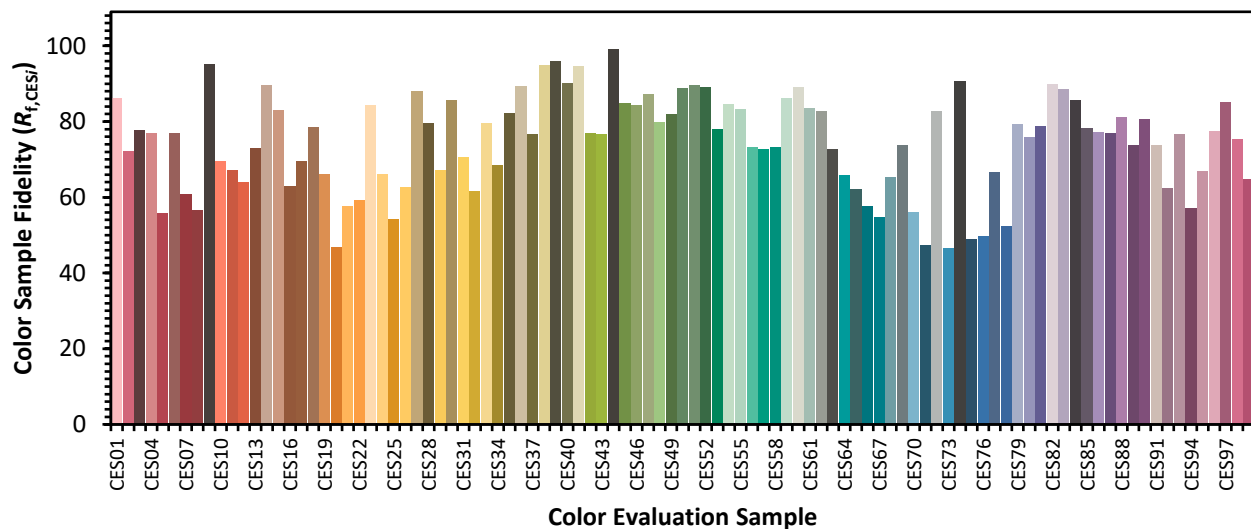


Color Vector Graphics

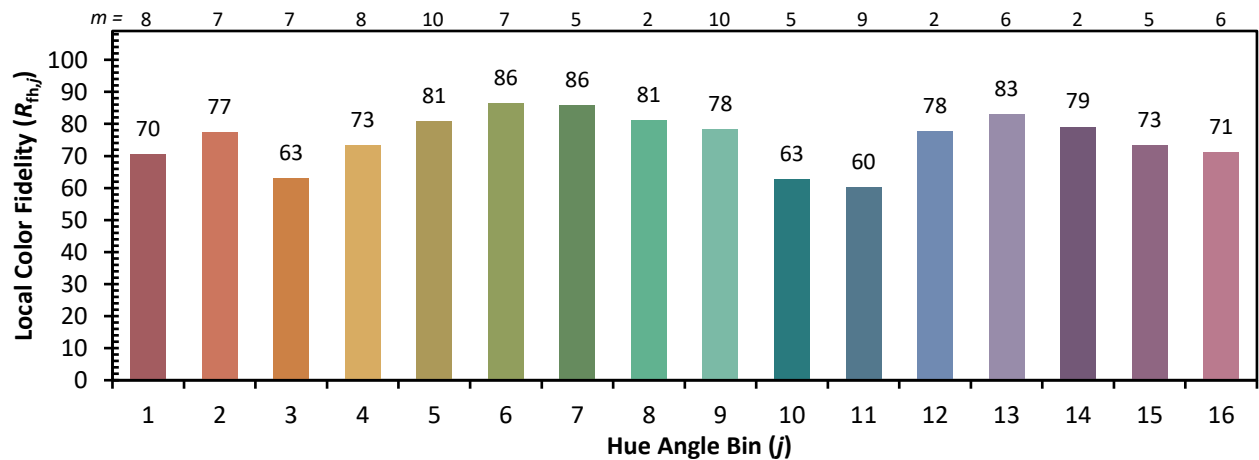
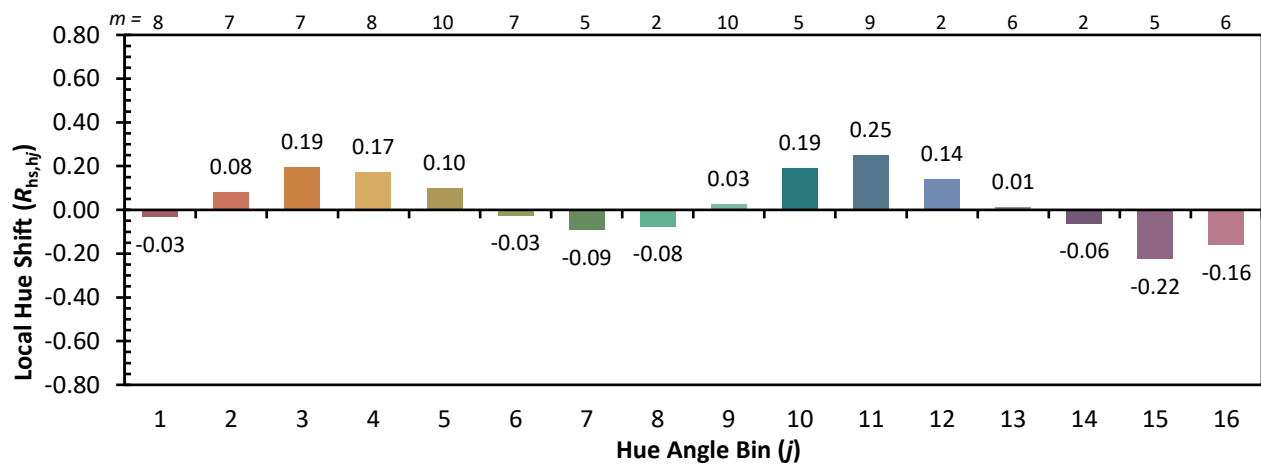
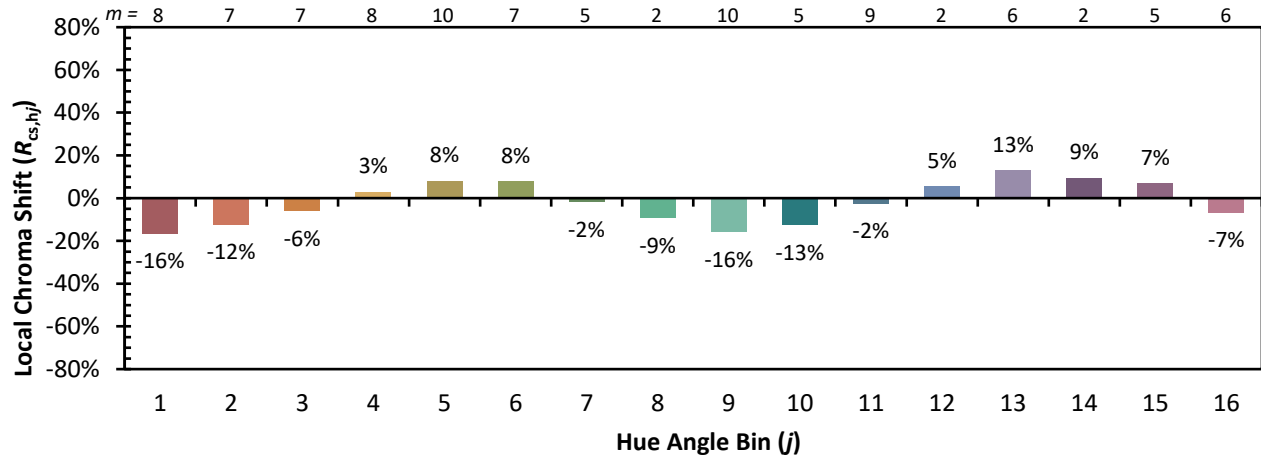


Individual Sample Fidelity Index ($R_{f,i}$)

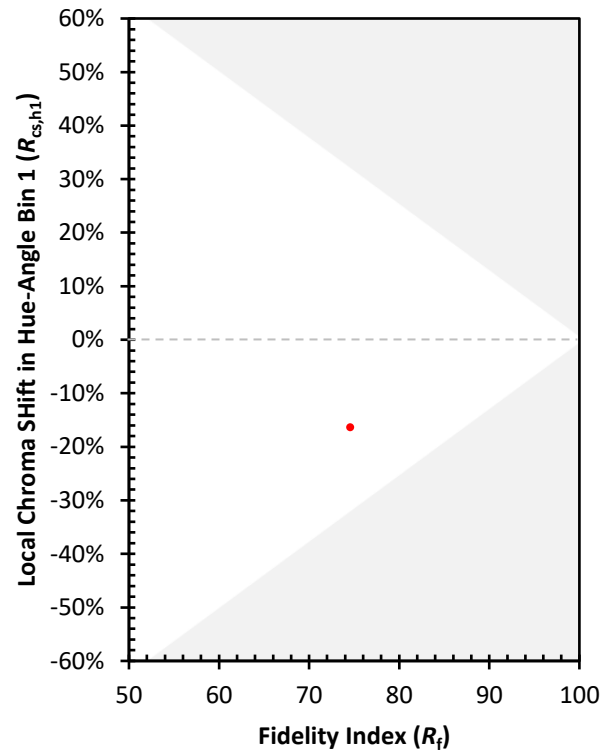
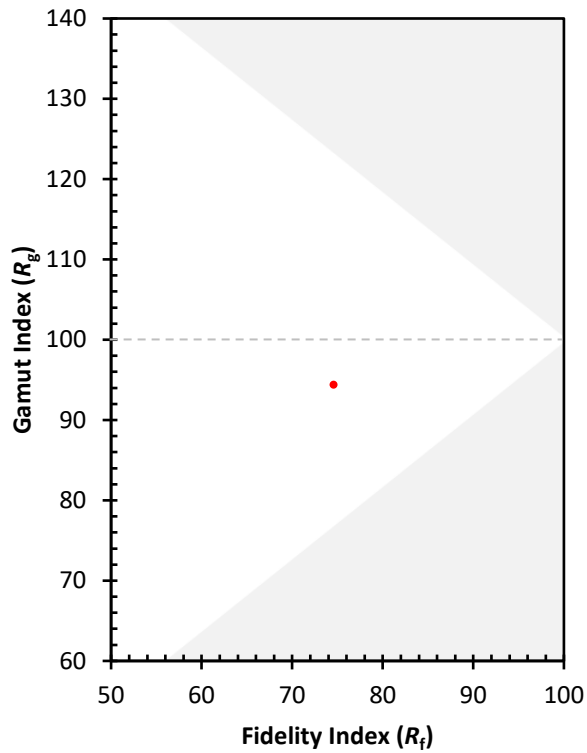
CES01 = 85	CES26 = 63	CES51 = 90	CES76 = 50
CES02 = 59	CES27 = 88	CES52 = 89	CES77 = 67
CES03 = 30	CES28 = 80	CES53 = 78	CES78 = 52
CES04 = 69	CES29 = 67	CES54 = 85	CES79 = 79
CES05 = 46	CES30 = 86	CES55 = 83	CES80 = 76
CES06 = 50	CES31 = 70	CES56 = 73	CES81 = 79
CES07 = 39	CES32 = 62	CES57 = 73	CES82 = 90
CES08 = 38	CES33 = 80	CES58 = 73	CES83 = 89
CES09 = 29	CES34 = 69	CES59 = 86	CES84 = 86
CES10 = 72	CES35 = 82	CES60 = 89	CES85 = 78
CES11 = 55	CES36 = 89	CES61 = 83	CES86 = 77
CES12 = 61	CES37 = 77	CES62 = 83	CES87 = 77
CES13 = 41	CES38 = 95	CES63 = 73	CES88 = 81
CES14 = 74	CES39 = 96	CES64 = 66	CES89 = 74
CES15 = 70	CES40 = 90	CES65 = 62	CES90 = 81
CES16 = 46	CES41 = 95	CES66 = 58	CES91 = 74
CES17 = 49	CES42 = 77	CES67 = 55	CES92 = 62
CES18 = 55	CES43 = 77	CES68 = 65	CES93 = 77
CES19 = 71	CES44 = 99	CES69 = 74	CES94 = 57
CES20 = 64	CES45 = 85	CES70 = 56	CES95 = 67
CES21 = 85	CES46 = 84	CES71 = 47	CES96 = 77
CES22 = 77	CES47 = 87	CES72 = 83	CES97 = 85
CES23 = 91	CES48 = 80	CES73 = 46	CES98 = 75
CES24 = 90	CES49 = 82	CES74 = 91	CES99 = 65
CES25 = 71	CES50 = 89	CES75 = 49	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)