

Classified
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: HALO

Report Number: P832489

Luminaire Tested: **7ORB15FS-1PK-ED-CA-950**

Issue Date: 05/08/2024

Test Information

Test Method: LM-79-08
Report Number: P832489
Test Lab: Intertek
Issue Date: 05/08/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: 7ORB15FS-1PK-ED-CA-950
Description: 7 inch 90 CRI COLOR SELECTABLE SPIN LIGHT WITH E26 BASE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

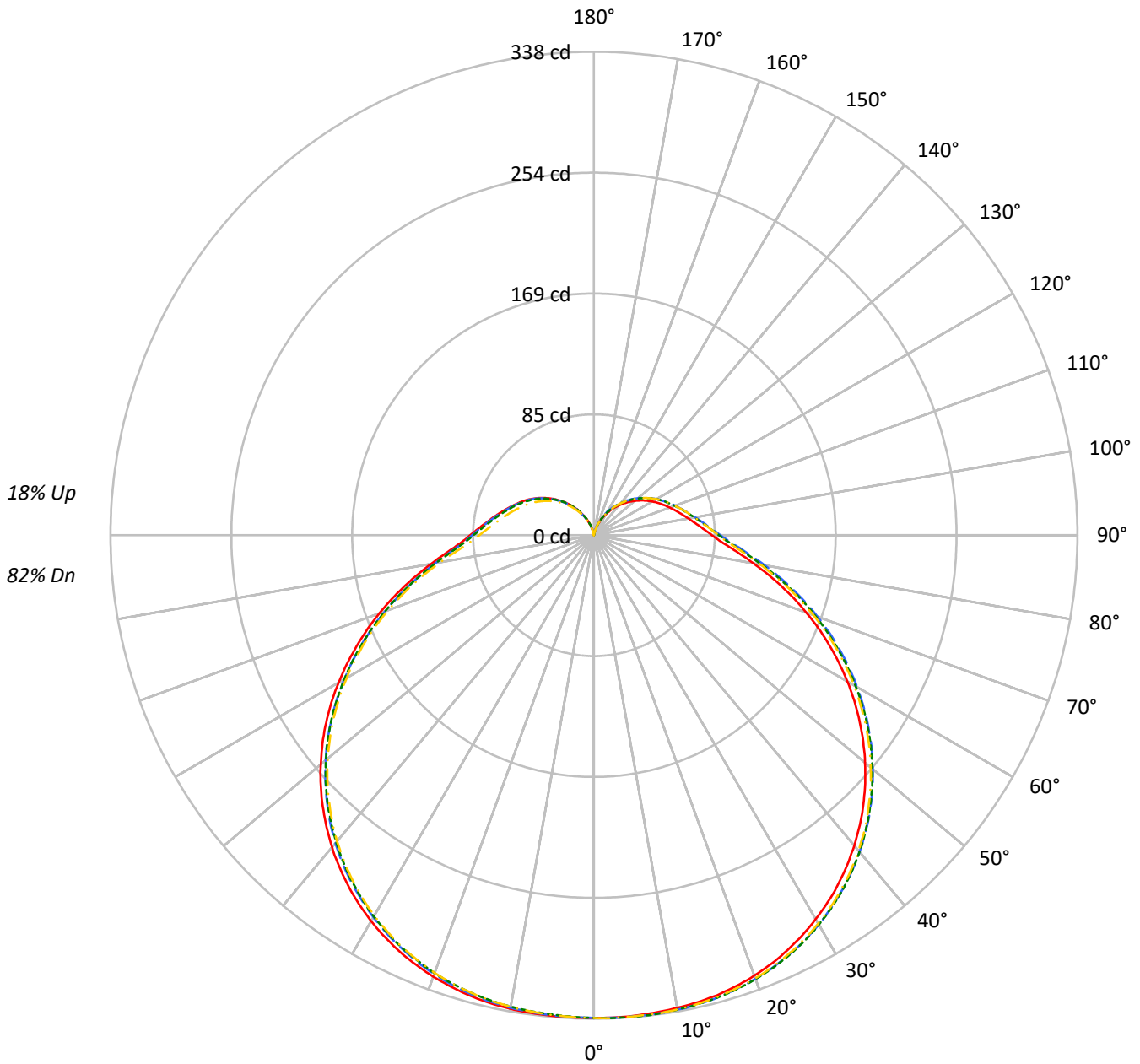
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1600.1 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.37 / 1.5
Luminous Opening: Vertical Cylinder (Dia: 0.6' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 15.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - · - 135°-315°



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	115	115	115	115	110	110	110	110	101	101	101	93	93	93	85	85	85	85	85	85	82
1	102	96	91	86	97	92	87	83	84	80	77	77	74	71	71	68	66	66	66	66	63
2	92	82	74	68	87	79	72	66	72	66	61	66	61	57	60	57	53	53	53	53	50
3	83	71	62	55	79	68	60	54	63	56	50	57	52	47	52	48	44	44	44	44	41
4	75	63	53	46	72	60	51	45	55	48	42	51	45	40	46	41	37	37	37	37	34
5	69	56	46	39	66	53	45	38	49	42	36	45	39	34	41	36	32	32	32	32	29
6	64	50	40	34	60	48	39	33	44	37	31	41	34	29	37	32	28	28	28	28	25
7	59	45	36	29	56	43	35	29	40	33	27	37	30	26	34	29	24	24	24	24	22
8	55	41	32	26	52	39	31	25	36	29	24	34	27	23	31	26	22	22	22	22	19
9	51	37	29	23	48	36	28	23	33	26	22	31	25	20	29	23	19	19	19	19	17
10	48	34	26	21	45	33	25	20	31	24	19	29	23	18	27	21	18	18	18	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	12848	12848	12848	12848
5°	12311	12336	12315	12285
10°	11860	11906	11885	11832
15°	11487	11543	11501	11432
20°	11127	11216	11151	11063
25°	10776	10897	10816	10709
30°	10432	10580	10482	10358
35°	10091	10264	10142	10000
40°	9739	9931	9794	9639
45°	9368	9586	9431	9269
50°	8977	9220	9046	8879
55°	8561	8821	8629	8451
60°	8118	8388	8178	7999
65°	7644	7931	7711	7522
70°	7152	7460	7229	7038
75°	6659	6984	6752	6565
80°	6196	6530	6328	6142
85°	5881	6215	6066	5893

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Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.1	2.0
10°-20°	94.2	5.9
20°-30°	148.0	9.2
30°-40°	187.1	11.7
40°-50°	206.6	12.9
50°-60°	204.0	12.8
60°-70°	181.2	11.3
70°-80°	144.6	9.0
80°-90°	107.3	6.7
90°-100°	84.2	5.3
100°-110°	68.1	4.3
110°-120°	54.0	3.4
120°-130°	40.0	2.5
130°-140°	26.4	1.6
140°-150°	14.8	0.9
150°-160°	6.2	0.4
160°-170°	1.4	0.1
170°-180°	0.0	0.0
0°-30°	274.3	17.1
0°-40°	461.5	28.8
0°-60°	872.1	54.5
0°-90°	1305.2	81.6
90°-120°	206.3	12.9
90°-150°	287.4	18.0
90°-180°	295.0	18.4
0°-180°	1600.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	338	338	338	338	338	
5°	337	338	337	336	337	32
15°	333	334	333	331	333	94
25°	320	324	321	318	320	148
35°	298	303	299	295	298	186
45°	266	272	268	264	266	206
55°	227	234	228	224	227	203
65°	181	188	183	178	181	180
75°	135	142	137	133	135	143
85°	95	100	98	95	95	81
90°	82	87	86	84	82	45
95°	74	79	78	76	74	59
105°	62	65	66	64	62	65
115°	52	55	56	55	52	52
125°	42	45	45	45	42	38
135°	32	35	35	34	32	25
145°	22	24	24	24	22	14
155°	12	13	13	13	12	6
165°	4	4	4	4	4	1
175°	0	0	0	0	0	0
180°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5	337.5
1°	337.5	337.6	337.5	337.4	337.6	337.5	337.7	337.6	337.5	337.6	337.3
2°	337.5	337.8	337.6	337.4	337.8	337.7	337.8	337.5	337.5	337.5	337.2
3°	337.3	337.6	337.7	337.4	337.8	337.7	337.6	337.6	337.4	337.6	337.0
4°	337.3	337.6	337.5	337.5	337.8	337.7	337.6	337.5	337.5	337.4	337.0
5°	337.1	337.4	337.4	337.5	337.8	337.6	337.5	337.5	337.2	337.1	336.9
6°	336.7	337.2	337.5	337.3	337.7	337.6	337.2	337.4	337.1	337.0	336.6
7°	336.6	337.2	337.5	337.3	337.7	337.6	337.2	337.4	336.9	336.9	336.4
8°	336.3	337.0	337.3	337.2	337.4	337.5	337.3	337.1	336.8	336.5	336.0
9°	336.0	336.8	337.0	337.1	337.2	337.3	336.9	336.9	336.5	336.3	335.8
10°	335.5	336.3	336.8	336.9	336.8	337.1	336.6	336.8	336.2	335.8	335.4
11°	335.2	336.1	336.6	336.6	336.4	336.8	336.4	336.5	335.8	335.4	334.9
12°	334.7	335.7	336.1	336.4	336.1	336.6	335.9	336.0	335.3	334.9	334.2
13°	334.2	335.1	335.8	336.0	335.6	336.2	335.4	335.5	334.8	334.3	333.7
14°	333.5	334.4	335.2	335.5	335.1	335.7	334.8	334.9	334.2	333.7	332.9
15°	332.9	333.8	334.5	334.9	334.5	335.2	334.1	334.2	333.3	332.8	332.1
16°	331.9	333.0	333.6	334.2	333.9	334.6	333.4	333.5	332.6	332.0	331.3
17°	331.0	332.0	332.9	333.4	333.2	333.8	332.5	332.6	331.6	331.0	330.1
18°	330.0	331.1	331.9	332.6	332.3	332.9	331.6	331.6	330.6	330.0	329.0
19°	328.9	330.1	331.1	331.7	331.3	332.0	330.7	330.6	329.6	328.8	327.8
20°	327.7	329.0	330.1	330.6	330.3	330.9	329.6	329.5	328.4	327.7	326.5
21°	326.3	327.7	328.8	329.5	329.1	329.6	328.5	328.3	327.1	326.3	325.1
22°	324.9	326.5	327.7	328.3	327.9	328.4	327.2	327.0	325.7	324.9	323.7
23°	323.5	325.1	326.3	327.2	326.7	327.2	325.8	325.6	324.3	323.3	321.9
24°	321.8	323.4	324.9	325.8	325.1	325.6	324.3	324.0	322.9	321.5	320.2
25°	320.0	321.8	323.4	324.3	323.6	324.1	322.7	322.5	321.2	319.9	318.5
26°	318.2	320.1	321.7	322.8	322.0	322.4	321.2	320.7	319.5	318.1	316.7
27°	316.4	318.3	320.1	321.1	320.3	320.6	319.3	319.0	317.5	316.2	314.8
28°	314.3	316.5	318.2	319.3	318.5	318.9	317.5	317.1	315.7	314.3	312.7
29°	312.3	314.5	316.3	317.6	316.5	316.8	315.6	315.1	313.7	312.2	310.5
30°	310.0	312.3	314.3	315.6	314.4	314.8	313.5	312.8	311.5	310.1	308.4
31°	307.7	310.1	312.2	313.5	312.3	312.6	311.4	310.7	309.2	307.8	306.0
32°	305.4	307.9	309.9	311.2	310.1	310.3	309.1	308.5	306.9	305.5	303.6
33°	303.0	305.4	307.6	309.0	307.7	308.0	306.9	306.1	304.5	303.0	301.0
34°	300.5	303.0	305.2	306.6	305.4	305.5	304.4	303.5	302.0	300.4	298.5
35°	297.8	300.4	302.7	304.3	302.9	303.0	301.8	301.0	299.3	297.7	295.9
36°	295.0	297.8	300.2	301.8	300.2	300.4	299.3	298.2	296.6	294.9	293.1
37°	292.2	295.0	297.6	299.2	297.5	297.6	296.5	295.5	293.8	292.1	290.2
38°	289.3	292.1	294.7	296.4	294.7	294.9	293.7	292.6	290.9	289.2	287.3
39°	286.2	289.2	292.0	293.6	291.9	292.0	290.8	289.6	288.0	286.1	284.2
40°	283.2	286.2	288.9	290.7	288.8	288.9	287.8	286.6	284.8	283.0	281.1
41°	279.9	283.0	285.9	287.6	285.8	285.8	284.6	283.4	281.5	279.7	277.9
42°	276.7	279.8	282.8	284.7	282.5	282.8	281.6	280.3	278.4	276.5	274.5
43°	273.4	276.6	279.5	281.5	279.3	279.4	278.2	276.9	275.0	273.0	271.1
44°	269.9	273.1	276.3	278.3	275.9	276.1	274.8	273.4	271.5	269.6	267.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	266.3	269.7	272.8	274.9	272.5	272.6	271.2	270.0	268.1	266.0	264.0
46°	262.7	266.1	269.3	271.5	269.0	269.1	267.7	266.4	264.6	262.4	260.2
47°	259.0	262.5	265.8	268.0	265.3	265.5	264.1	262.7	260.8	258.6	256.5
48°	255.2	258.8	262.0	264.4	261.7	261.8	260.3	259.0	257.1	254.8	252.6
49°	251.3	255.0	258.3	260.7	258.0	257.9	256.5	255.2	253.4	250.9	248.8
50°	247.4	251.1	254.4	256.9	254.1	254.0	252.6	251.2	249.3	246.9	244.8
51°	243.5	247.2	250.5	252.9	250.2	250.2	248.6	247.3	245.2	242.9	240.9
52°	239.3	243.2	246.7	248.9	246.1	246.0	244.6	243.2	241.2	238.8	236.7
53°	235.4	239.1	242.6	245.0	242.1	241.9	240.5	239.1	237.1	234.6	232.5
54°	231.0	234.9	238.4	240.8	237.9	237.7	236.2	234.9	232.9	230.4	228.2
55°	226.7	230.7	234.2	236.7	233.6	233.5	232.0	230.5	228.5	226.1	223.9
56°	222.4	226.4	230.1	232.5	229.4	229.3	227.7	226.2	224.2	221.7	219.6
57°	218.0	222.1	225.6	228.2	224.9	224.9	223.3	221.7	219.8	217.3	215.1
58°	213.6	217.6	221.5	223.9	220.5	220.5	218.9	217.3	215.3	212.8	210.6
59°	209.1	213.2	216.9	219.5	215.9	216.0	214.4	212.8	210.8	208.4	206.1
60°	204.6	208.7	212.5	215.1	211.4	211.5	209.9	208.3	206.1	203.8	201.5
61°	200.0	204.2	208.1	210.7	206.8	206.9	205.4	203.7	201.5	199.3	197.0
62°	195.4	199.6	203.4	206.1	202.1	202.2	200.7	199.1	196.9	194.6	192.5
63°	190.8	195.0	199.0	201.6	197.5	197.5	196.1	194.4	192.3	190.0	187.8
64°	186.2	190.4	194.3	197.0	192.9	192.8	191.4	189.7	187.5	185.4	183.1
65°	181.4	185.7	189.6	192.3	188.2	188.1	186.8	185.1	183.0	180.7	178.5
66°	176.8	181.1	185.1	187.7	183.5	183.5	182.1	180.3	178.3	176.1	173.9
67°	172.1	176.3	180.3	182.9	178.8	178.8	177.4	175.7	173.6	171.4	169.2
68°	167.4	171.7	175.7	178.3	174.2	174.1	172.6	171.1	169.0	166.8	164.7
69°	162.6	167.0	171.0	173.5	169.4	169.3	168.0	166.4	164.3	162.1	159.9
70°	157.9	162.3	166.3	168.8	164.7	164.6	163.2	161.6	159.6	157.5	155.4
71°	153.2	157.6	161.6	164.2	160.0	159.8	158.5	156.9	155.0	152.9	150.8
72°	148.7	153.0	157.0	159.5	155.3	155.1	153.8	152.3	150.4	148.3	146.2
73°	144.0	148.3	152.3	154.9	150.6	150.5	149.2	147.7	145.8	143.8	141.8
74°	139.4	143.8	147.7	150.2	146.1	145.9	144.5	143.1	141.3	139.3	137.4
75°	134.9	139.2	143.2	145.7	141.5	141.2	140.0	138.6	136.8	134.9	133.0
76°	130.4	134.7	138.6	141.1	136.8	136.7	135.3	134.0	132.4	130.5	128.7
77°	126.1	130.3	134.2	136.6	132.4	132.2	131.0	129.7	128.1	126.3	124.5
78°	121.8	125.9	129.8	132.2	127.9	127.8	126.6	125.4	123.9	122.1	120.4
79°	117.5	121.6	125.4	127.8	123.6	123.4	122.3	121.2	119.7	118.0	116.4
80°	113.3	117.5	121.2	123.5	119.4	119.2	118.2	117.1	115.7	114.2	112.6
81°	109.5	113.5	117.1	119.3	115.2	115.1	114.1	113.1	111.9	110.5	108.8
82°	105.6	109.5	113.1	115.3	111.3	111.2	110.3	109.3	108.1	106.7	105.3
83°	101.9	105.8	109.3	111.3	107.5	107.4	106.5	105.8	104.6	103.3	102.0
84°	98.5	102.2	105.7	107.6	103.9	103.8	103.0	102.3	101.2	100.1	98.8
85°	95.1	98.7	102.2	104.0	100.5	100.4	99.7	99.1	98.1	97.1	95.9
86°	92.1	95.6	98.9	100.6	97.3	97.2	96.6	96.1	95.2	94.3	93.2
87°	89.3	92.7	95.8	97.5	94.4	94.4	93.8	93.4	92.7	91.9	90.9
88°	86.8	90.0	93.1	94.6	91.8	91.7	91.2	91.0	90.4	89.7	88.8
89°	84.5	87.6	90.6	92.0	89.5	89.4	89.1	88.8	88.3	87.7	86.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	82.5	85.6	88.4	89.7	87.4	87.4	87.1	86.9	86.5	85.9	85.2
91°	80.7	83.6	86.4	87.6	85.4	85.4	85.2	85.1	84.7	84.2	83.5
92°	78.9	81.8	84.5	85.7	83.6	83.7	83.4	83.3	83.0	82.5	81.9
93°	77.2	80.0	82.6	83.8	81.8	81.9	81.7	81.6	81.4	80.9	80.3
94°	75.6	78.4	80.9	82.1	80.2	80.2	80.1	80.0	79.8	79.4	78.9
95°	74.0	76.7	79.2	80.4	78.6	78.6	78.5	78.5	78.3	77.9	77.4
96°	72.5	75.2	77.7	78.7	77.0	77.1	77.0	77.0	76.8	76.5	76.0
97°	71.1	73.7	76.1	77.2	75.6	75.6	75.5	75.6	75.4	75.1	74.6
98°	69.7	72.2	74.7	75.7	74.1	74.2	74.1	74.2	74.0	73.7	73.3
99°	68.4	70.9	73.3	74.2	72.7	72.8	72.8	72.9	72.8	72.4	72.1
100°	67.2	69.6	71.9	72.8	71.4	71.5	71.5	71.6	71.5	71.2	70.8
101°	65.9	68.3	70.6	71.6	70.1	70.2	70.2	70.4	70.3	70.0	69.6
102°	64.8	67.0	69.3	70.3	68.9	69.0	69.0	69.1	69.1	68.8	68.5
103°	63.6	65.9	68.1	69.0	67.7	67.8	67.8	67.9	67.9	67.7	67.3
104°	62.5	64.7	66.9	67.8	66.5	66.7	66.7	66.8	66.8	66.6	66.2
105°	61.5	63.5	65.7	66.6	65.4	65.5	65.6	65.6	65.7	65.4	65.1
106°	60.4	62.5	64.6	65.5	64.3	64.4	64.4	64.6	64.6	64.4	64.0
107°	59.4	61.4	63.6	64.4	63.2	63.3	63.4	63.5	63.5	63.3	63.0
108°	58.4	60.4	62.5	63.3	62.1	62.3	62.3	62.4	62.5	62.3	62.0
109°	57.4	59.4	61.5	62.2	61.1	61.3	61.3	61.4	61.4	61.2	61.0
110°	56.5	58.4	60.4	61.2	60.1	60.2	60.2	60.4	60.4	60.2	60.0
111°	55.5	57.4	59.4	60.2	59.1	59.2	59.2	59.3	59.4	59.2	59.0
112°	54.6	56.5	58.4	59.2	58.1	58.2	58.2	58.4	58.4	58.2	58.0
113°	53.7	55.5	57.5	58.2	57.1	57.3	57.3	57.4	57.5	57.3	57.0
114°	52.7	54.6	56.5	57.2	56.2	56.4	56.4	56.5	56.6	56.4	56.2
115°	51.8	53.6	55.5	56.2	55.4	55.5	55.5	55.6	55.6	55.5	55.4
116°	50.9	52.7	54.5	55.2	54.5	54.6	54.6	54.7	54.7	54.6	54.4
117°	50.0	51.7	53.5	54.3	53.5	53.6	53.6	53.7	53.7	53.6	53.4
118°	49.1	50.8	52.5	53.3	52.5	52.6	52.6	52.7	52.7	52.5	52.3
119°	48.1	49.8	51.6	52.3	51.5	51.6	51.6	51.7	51.7	51.5	51.3
120°	47.2	48.9	50.6	51.3	50.5	50.6	50.5	50.7	50.7	50.5	50.3
121°	46.2	47.9	49.6	50.3	49.5	49.5	49.5	49.6	49.6	49.4	49.3
122°	45.3	47.0	48.6	49.3	48.4	48.5	48.5	48.6	48.6	48.4	48.2
123°	44.3	46.0	47.6	48.2	47.4	47.5	47.5	47.5	47.5	47.3	47.2
124°	43.4	45.0	46.6	47.2	46.3	46.4	46.4	46.5	46.5	46.3	46.1
125°	42.4	44.0	45.6	46.2	45.3	45.4	45.4	45.4	45.4	45.2	45.0
126°	41.4	43.0	44.6	45.1	44.3	44.3	44.3	44.4	44.4	44.1	44.0
127°	40.4	42.0	43.5	44.1	43.2	43.3	43.3	43.3	43.3	43.0	42.9
128°	39.4	41.0	42.5	43.0	42.1	42.2	42.2	42.2	42.2	42.0	41.8
129°	38.5	39.9	41.4	42.0	41.1	41.2	41.2	41.2	41.2	40.9	40.7
130°	37.5	38.9	40.4	40.9	40.0	40.1	40.1	40.1	40.1	39.8	39.6
131°	36.4	37.9	39.3	39.8	38.9	39.0	39.0	39.0	39.0	38.7	38.5
132°	35.4	36.9	38.3	38.8	37.8	37.9	37.9	37.9	37.9	37.6	37.4
133°	34.5	35.8	37.2	37.7	36.8	36.8	36.9	36.8	36.8	36.5	36.3
134°	33.4	34.8	36.2	36.7	35.7	35.8	35.8	35.7	35.7	35.4	35.2

Cooper Lighting Solutions Photometric Lab
 1121 Highway 74 South
 Peachtree City, GA 30269



TEST NUMBER: P832489

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-950

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
135°	32.4	33.8	35.1	35.6	34.6	34.7	34.7	34.7	34.6	34.3	34.1
136°	31.4	32.7	34.0	34.5	33.5	33.6	33.6	33.6	33.5	33.2	33.0
137°	30.4	31.7	33.0	33.4	32.4	32.5	32.5	32.4	32.4	32.1	31.9
138°	29.4	30.7	31.9	32.4	31.3	31.4	31.4	31.4	31.2	31.0	30.8
139°	28.4	29.6	30.8	31.3	30.2	30.3	30.3	30.3	30.2	29.8	29.7
140°	27.3	28.6	29.8	30.2	29.1	29.2	29.2	29.2	29.0	28.7	28.5
141°	26.3	27.5	28.7	29.1	28.0	28.1	28.1	28.1	27.9	27.6	27.4
142°	25.3	26.5	27.6	28.0	26.9	27.0	27.0	27.0	26.8	26.5	26.3
143°	24.4	25.6	26.5	27.0	25.9	25.9	25.9	25.9	25.7	25.4	25.2
144°	23.4	24.5	25.4	25.9	24.8	24.8	24.9	24.8	24.6	24.3	24.1
145°	22.4	23.5	24.4	24.8	23.7	23.8	23.8	23.7	23.5	23.2	23.0
146°	21.4	22.4	23.5	23.8	22.6	22.7	22.7	22.6	22.4	22.1	21.9
147°	20.3	21.4	22.4	22.7	21.5	21.6	21.6	21.5	21.4	21.0	20.8
148°	19.3	20.4	21.3	21.7	20.5	20.5	20.5	20.5	20.3	20.0	19.7
149°	18.3	19.3	20.3	20.6	19.4	19.5	19.5	19.4	19.2	18.9	18.6
150°	17.3	18.3	19.2	19.6	18.3	18.4	18.4	18.3	18.2	17.8	17.5
151°	16.4	17.3	18.2	18.5	17.3	17.4	17.4	17.3	17.1	16.8	16.5
152°	15.4	16.3	17.1	17.5	16.2	16.3	16.3	16.3	16.1	15.7	15.5
153°	14.4	15.3	16.1	16.4	15.2	15.3	15.3	15.2	15.0	14.7	14.4
154°	13.5	14.3	15.1	15.4	14.2	14.3	14.3	14.2	14.0	13.7	13.4
155°	12.5	13.3	14.1	14.4	13.2	13.3	13.3	13.2	13.0	12.7	12.4
156°	11.6	12.4	13.1	13.4	12.2	12.3	12.3	12.2	12.0	11.7	11.4
157°	10.6	11.4	12.1	12.4	11.2	11.3	11.3	11.3	11.1	10.7	10.4
158°	9.7	10.5	11.1	11.4	10.3	10.4	10.4	10.3	10.1	9.8	9.5
159°	8.9	9.6	10.1	10.4	9.3	9.4	9.4	9.4	9.2	8.9	8.5
160°	8.0	8.7	9.2	9.5	8.4	8.5	8.5	8.4	8.3	8.0	7.6
161°	7.2	7.8	8.3	8.6	7.5	7.6	7.6	7.6	7.4	7.1	6.8
162°	6.3	6.9	7.4	7.7	6.7	6.7	6.7	6.7	6.6	6.3	6.0
163°	5.6	6.1	6.6	6.8	5.8	6.0	6.0	5.9	5.8	5.5	5.2
164°	4.8	5.3	5.7	6.0	5.1	5.2	5.2	5.2	5.0	4.8	4.5
165°	4.1	4.6	4.9	5.2	4.4	4.4	4.4	4.4	4.3	4.0	3.8
166°	3.4	3.8	4.2	4.4	3.7	3.7	3.7	3.7	3.6	3.3	3.1
167°	2.8	3.2	3.5	3.7	3.0	3.0	3.1	3.0	2.9	2.7	2.5
168°	2.3	2.6	2.8	3.0	2.4	2.4	2.5	2.4	2.3	2.1	1.9
169°	1.8	2.1	2.3	2.5	1.9	1.9	1.9	1.9	1.8	1.6	1.4
170°	1.3	1.6	1.8	1.9	1.4	1.4	1.4	1.4	1.3	1.2	1.0
171°	1.0	1.2	1.3	1.4	1.0	1.0	1.0	1.0	0.9	0.8	0.7
172°	0.6	0.8	0.9	1.0	0.6	0.7	0.7	0.6	0.6	0.5	0.4
173°	0.4	0.5	0.6	0.7	0.4	0.4	0.4	0.4	0.4	0.3	0.2
174°	0.3	0.3	0.4	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.1
175°	0.2	0.2	0.2	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1
176°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
177°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
178°	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P832489
CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-950

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab
 1121 Highway 74 South
 Peachtree City, GA 30269



TEST NUMBER: P832489

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-950

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	337.5	337.5	337.5	337.5	337.5	337.5
1°	337.2	337.3	337.4	337.4	337.5	337.5
2°	337.1	337.1	337.3	337.3	337.5	337.5
3°	336.9	336.9	337.0	337.1	337.2	337.3
4°	336.8	336.6	336.8	336.8	337.2	337.3
5°	336.5	336.4	336.7	336.6	337.0	337.1
6°	336.1	336.1	336.5	336.4	336.7	336.7
7°	335.9	335.8	336.2	336.0	336.4	336.6
8°	335.5	335.5	335.8	335.7	336.1	336.3
9°	335.0	335.2	335.4	335.3	335.6	336.0
10°	334.6	334.7	335.0	334.8	335.2	335.5
11°	334.0	334.2	334.4	334.2	334.6	335.2
12°	333.3	333.5	333.7	333.6	334.0	334.7
13°	332.7	332.9	333.2	332.9	333.4	334.2
14°	331.9	332.1	332.4	332.2	332.6	333.5
15°	331.0	331.3	331.5	331.2	331.9	332.9
16°	330.0	330.3	330.5	330.2	330.9	331.9
17°	329.0	329.3	329.3	329.2	330.0	331.0
18°	327.8	328.2	328.2	328.1	328.9	330.0
19°	326.6	327.0	326.8	326.9	327.7	328.9
20°	325.3	325.8	325.6	325.6	326.5	327.7
21°	323.9	324.3	324.2	324.0	325.1	326.3
22°	322.3	322.7	322.8	322.5	323.6	324.9
23°	320.8	321.3	321.1	321.0	322.1	323.5
24°	319.1	319.6	319.5	319.3	320.4	321.8
25°	317.3	318.0	317.7	317.5	318.8	320.0
26°	315.5	316.2	315.8	315.6	316.8	318.2
27°	313.5	314.2	313.9	313.6	314.9	316.4
28°	311.4	312.1	311.7	311.5	312.8	314.3
29°	309.2	310.0	309.6	309.3	310.6	312.3
30°	306.8	307.8	307.2	307.1	308.3	310.0
31°	304.5	305.4	304.9	304.7	305.9	307.7
32°	302.0	303.0	302.5	302.3	303.5	305.4
33°	299.5	300.4	300.0	299.7	301.0	303.0
34°	296.9	297.7	297.4	297.0	298.5	300.5
35°	294.3	295.1	294.7	294.3	295.7	297.8
36°	291.4	292.4	292.0	291.5	292.9	295.0
37°	288.5	289.4	289.0	288.6	290.1	292.2
38°	285.5	286.5	286.0	285.5	287.1	289.3
39°	282.4	283.4	282.9	282.5	284.1	286.2
40°	279.1	280.3	279.7	279.3	281.0	283.2
41°	275.9	277.0	276.3	276.0	277.7	279.9
42°	272.5	273.8	273.0	272.7	274.3	276.7
43°	269.0	270.4	269.5	269.2	270.9	273.4
44°	265.5	266.9	266.0	265.7	267.5	269.9

Cooper Lighting Solutions Photometric Lab
 1121 Highway 74 South
 Peachtree City, GA 30269



TEST NUMBER: P832489

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-950

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	261.9	263.5	262.5	262.1	263.8	266.3
46°	258.2	259.8	258.6	258.4	260.1	262.7
47°	254.5	256.2	254.8	254.6	256.4	259.0
48°	250.7	252.3	251.0	250.8	252.4	255.2
49°	246.9	248.5	247.2	246.9	248.6	251.3
50°	242.7	244.7	243.2	242.9	244.6	247.4
51°	238.7	240.6	239.1	238.9	240.5	243.5
52°	234.5	236.5	234.9	234.7	236.4	239.3
53°	230.2	232.4	230.9	230.5	232.3	235.4
54°	225.9	228.1	226.6	226.3	228.0	231.0
55°	221.6	223.8	222.3	222.0	223.7	226.7
56°	217.1	219.5	217.9	217.6	219.4	222.4
57°	212.7	215.0	213.5	213.1	215.0	218.0
58°	208.2	210.5	208.9	208.7	210.6	213.6
59°	203.7	206.1	204.4	204.2	206.1	209.1
60°	199.1	201.6	199.9	199.6	201.5	204.6
61°	194.6	197.0	195.3	195.1	197.0	200.0
62°	190.0	192.4	190.7	190.4	192.3	195.4
63°	185.4	187.8	186.1	185.8	187.7	190.8
64°	180.8	183.2	181.5	181.1	183.0	186.2
65°	176.1	178.5	176.8	176.5	178.4	181.4
66°	171.5	173.9	172.2	171.8	173.7	176.8
67°	166.8	169.2	167.5	167.1	168.9	172.1
68°	162.3	164.6	163.0	162.4	164.2	167.4
69°	157.6	159.9	158.3	157.7	159.5	162.6
70°	153.0	155.4	153.5	153.1	154.8	157.9
71°	148.5	150.8	148.9	148.4	150.2	153.2
72°	144.0	146.4	144.3	143.8	145.5	148.7
73°	139.6	141.8	139.8	139.2	140.9	144.0
74°	135.2	137.3	135.2	134.7	136.4	139.4
75°	130.9	133.0	130.9	130.2	131.9	134.9
76°	126.5	128.7	126.5	125.9	127.5	130.4
77°	122.5	124.4	122.3	121.5	123.2	126.1
78°	118.4	120.3	118.1	117.3	118.8	121.8
79°	114.5	116.2	114.1	113.2	114.6	117.5
80°	110.7	112.3	110.1	109.2	110.6	113.3
81°	107.1	108.6	106.3	105.3	106.7	109.5
82°	103.7	105.0	102.7	101.6	102.9	105.6
83°	100.4	101.6	99.2	98.1	99.2	101.9
84°	97.4	98.4	96.0	94.8	95.8	98.5
85°	94.6	95.3	92.9	91.6	92.6	95.1
86°	92.0	92.6	90.1	88.8	89.7	92.1
87°	89.8	90.1	87.7	86.3	87.0	89.3
88°	87.9	87.9	85.5	84.0	84.6	86.8
89°	86.0	86.0	83.5	82.0	82.6	84.5

Cooper Lighting Solutions Photometric Lab
 1121 Highway 74 South
 Peachtree City, GA 30269



TEST NUMBER: P832489

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-950

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	84.4	84.2	81.7	80.2	80.6	82.5
91°	82.7	82.5	80.0	78.5	78.8	80.7
92°	81.2	80.9	78.4	76.8	77.1	78.9
93°	79.6	79.3	76.8	75.2	75.5	77.2
94°	78.2	77.8	75.4	73.7	73.9	75.6
95°	76.7	76.4	74.0	72.3	72.4	74.0
96°	75.4	75.0	72.6	70.9	71.0	72.5
97°	74.0	73.6	71.3	69.6	69.6	71.1
98°	72.7	72.4	70.0	68.3	68.3	69.7
99°	71.5	71.1	68.8	67.1	67.1	68.4
100°	70.3	69.9	67.6	65.9	65.9	67.2
101°	69.1	68.7	66.5	64.8	64.7	65.9
102°	68.0	67.6	65.4	63.7	63.6	64.8
103°	66.8	66.5	64.2	62.6	62.5	63.6
104°	65.7	65.4	63.2	61.6	61.4	62.5
105°	64.7	64.3	62.2	60.6	60.4	61.5
106°	63.6	63.3	61.2	59.5	59.4	60.4
107°	62.6	62.3	60.2	58.6	58.4	59.4
108°	61.6	61.3	59.2	57.6	57.4	58.4
109°	60.6	60.3	58.3	56.7	56.5	57.4
110°	59.6	59.4	57.3	55.8	55.5	56.5
111°	58.6	58.4	56.4	54.8	54.6	55.5
112°	57.7	57.4	55.5	53.9	53.7	54.6
113°	56.8	56.5	54.6	53.0	52.8	53.7
114°	55.9	55.5	53.6	52.1	51.8	52.7
115°	55.0	54.6	52.7	51.2	50.9	51.8
116°	54.0	53.6	51.8	50.3	50.1	50.9
117°	53.0	52.7	50.8	49.4	49.2	50.0
118°	52.0	51.7	49.9	48.5	48.2	49.1
119°	51.0	50.7	48.9	47.5	47.3	48.1
120°	50.0	49.7	48.0	46.6	46.4	47.2
121°	48.9	48.7	47.0	45.6	45.5	46.2
122°	47.9	47.7	46.0	44.7	44.5	45.3
123°	46.8	46.7	45.1	43.8	43.6	44.3
124°	45.8	45.7	44.1	42.8	42.6	43.4
125°	44.8	44.7	43.1	41.8	41.7	42.4
126°	43.7	43.6	42.1	40.8	40.7	41.4
127°	42.6	42.6	41.1	39.9	39.7	40.4
128°	41.5	41.6	40.1	38.9	38.7	39.4
129°	40.4	40.5	39.1	37.9	37.8	38.5
130°	39.3	39.5	38.1	36.9	36.8	37.5
131°	38.2	38.4	37.0	35.9	35.8	36.4
132°	37.2	37.4	36.0	34.9	34.8	35.4
133°	36.1	36.3	35.0	33.9	33.8	34.5
134°	35.0	35.2	34.0	32.9	32.8	33.4

Cooper Lighting Solutions Photometric Lab
 1121 Highway 74 South
 Peachtree City, GA 30269



TEST NUMBER: P832489

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-950

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
135°	33.9	34.2	32.9	31.9	31.8	32.4
136°	32.8	33.1	31.9	30.9	30.8	31.4
137°	31.6	32.0	30.8	29.9	29.8	30.4
138°	30.5	31.0	29.8	28.8	28.7	29.4
139°	29.4	29.9	28.7	27.8	27.7	28.4
140°	28.3	28.8	27.7	26.8	26.7	27.3
141°	27.2	27.7	26.6	25.8	25.7	26.3
142°	26.1	26.7	25.6	24.8	24.8	25.3
143°	25.0	25.6	24.6	23.8	23.8	24.4
144°	23.9	24.5	23.6	22.9	22.8	23.4
145°	22.8	23.5	22.6	21.8	21.8	22.4
146°	21.7	22.5	21.6	20.8	20.8	21.4
147°	20.6	21.4	20.5	19.8	19.8	20.3
148°	19.5	20.3	19.5	18.8	18.8	19.3
149°	18.4	19.3	18.5	17.8	17.8	18.3
150°	17.4	18.2	17.5	16.8	16.8	17.3
151°	16.3	17.2	16.4	15.8	15.8	16.4
152°	15.3	16.1	15.4	14.9	14.9	15.4
153°	14.2	15.1	14.4	13.9	13.9	14.4
154°	13.2	14.1	13.5	13.0	13.0	13.5
155°	12.2	13.1	12.5	12.0	12.0	12.5
156°	11.2	12.1	11.5	11.1	11.1	11.6
157°	10.2	11.1	10.6	10.2	10.2	10.6
158°	9.3	10.1	9.7	9.3	9.3	9.7
159°	8.3	9.2	8.8	8.4	8.4	8.9
160°	7.5	8.3	7.9	7.5	7.6	8.0
161°	6.6	7.4	7.0	6.7	6.8	7.2
162°	5.8	6.5	6.2	5.9	6.0	6.3
163°	5.0	5.7	5.4	5.1	5.2	5.6
164°	4.3	4.9	4.6	4.4	4.5	4.8
165°	3.6	4.1	3.9	3.7	3.8	4.1
166°	2.9	3.4	3.2	3.1	3.1	3.4
167°	2.3	2.7	2.6	2.5	2.5	2.8
168°	1.8	2.2	2.1	2.0	2.1	2.3
169°	1.3	1.7	1.6	1.5	1.6	1.8
170°	0.9	1.2	1.1	1.1	1.2	1.3
171°	0.6	0.8	0.8	0.8	0.8	1.0
172°	0.3	0.5	0.5	0.5	0.5	0.6
173°	0.2	0.3	0.3	0.3	0.3	0.4
174°	0.1	0.1	0.2	0.2	0.2	0.3
175°	0.1	0.1	0.1	0.1	0.2	0.2
176°	0.1	0.1	0.1	0.1	0.1	0.2
177°	0.0	0.0	0.0	0.1	0.1	0.1
178°	0.0	0.0	0.0	0.0	0.0	0.1
179°	0.0	0.0	0.0	0.0	0.0	0.0

Classified
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



TEST NUMBER: P832489
CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-950

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
180°	0.0	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

HALO

Report Number: SP1-2405-083-5

Test Date: 05/22/2024

Luminaire Tested: 7ORB15FS-1PK-ED-CA-5000K

Data in this report applies to families of products 7ORB15FS-1PK-ED-CA-5000K.

Test Information

Test Method: LM-79-2019
 Report Number: SP1-2405-083-5
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 05/22/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: HALO
 Catalog Number: **7ORB15FS-1PK-ED-CA-5000K**
 Description: Halo Spin Light 5000K

Spectral Parameters

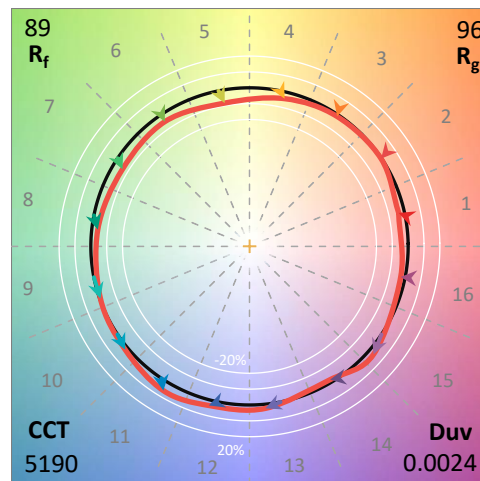
CCT (K): 5190
 CIE u': 0.2078
 CIE v': 0.4843
 Duv: 0.0024
 CIE x: 0.3402
 CIE y: 0.3523
 CIE z: 0.3075
 Peak Wavelength (nm): 632
 Dominant Wavelength (nm): 567
 Purity: 8

CRI (Ra):	94.7		
R1:	97.5	R9:	85.7
R2:	98.4	R10:	99.3
R3:	98.3	R11:	94.6
R4:	91.8	R12:	71.6
R5:	94.1	R13:	99.1
R6:	94.8	R14:	99.5
R7:	91.8		
R8:	91.0		

Rf: 88.7
 Rg: 96.2

Test Conditions

Stabilization Time: 10M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 25.0/42%
 Sphere Temperature (°C): 25.2

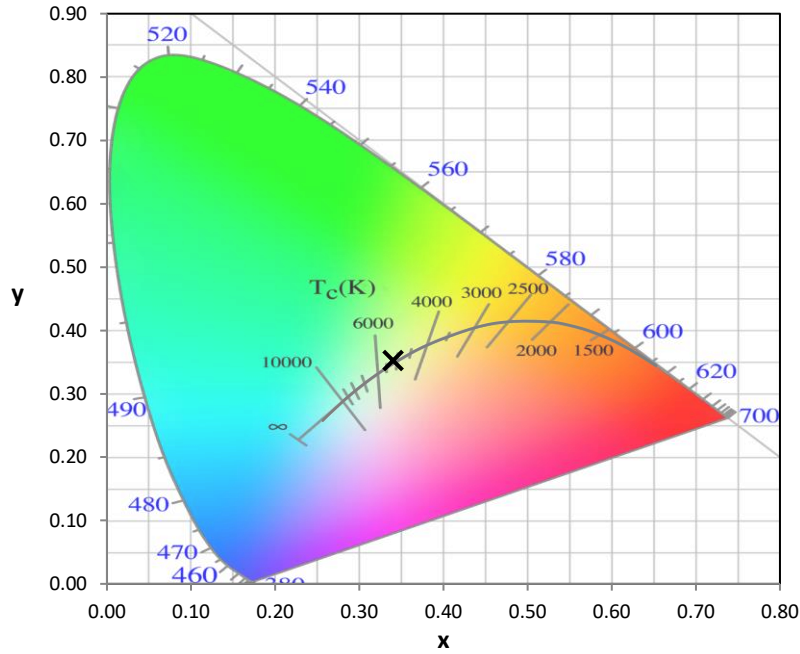


REPORT NUMBER: SP1-2405-083-5

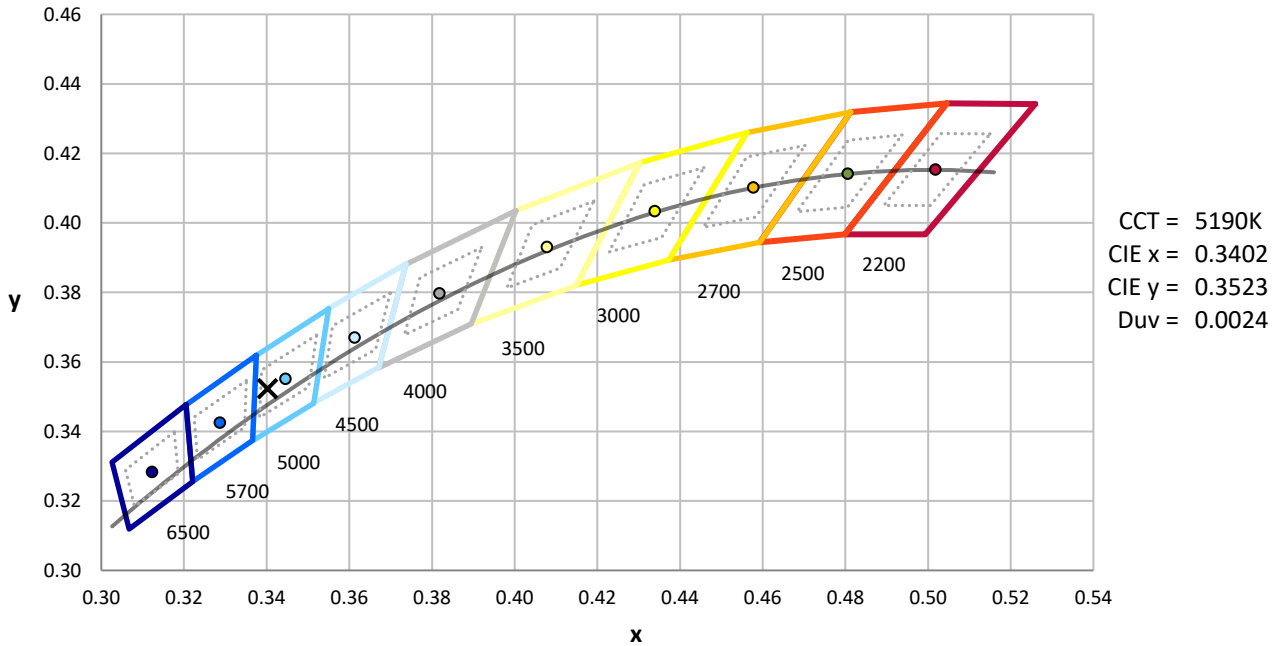
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	2/12/2024	8/12/2024
Power Meter	XITRON 2801 IN0071	10/23/2023	10/23/2024
AC Power Source	CHROMA 61603 IN0063	10/24/2023	10/24/2024
DC Power Source	AGILENT E3634A IN0208	10/24/2023	10/24/2024
Sphere Thermometer	ONSET IN0085	10/24/2023	10/24/2024
Room Thermometer	ONSET IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2405-083-5

CIE 1931 Chromaticity Diagram



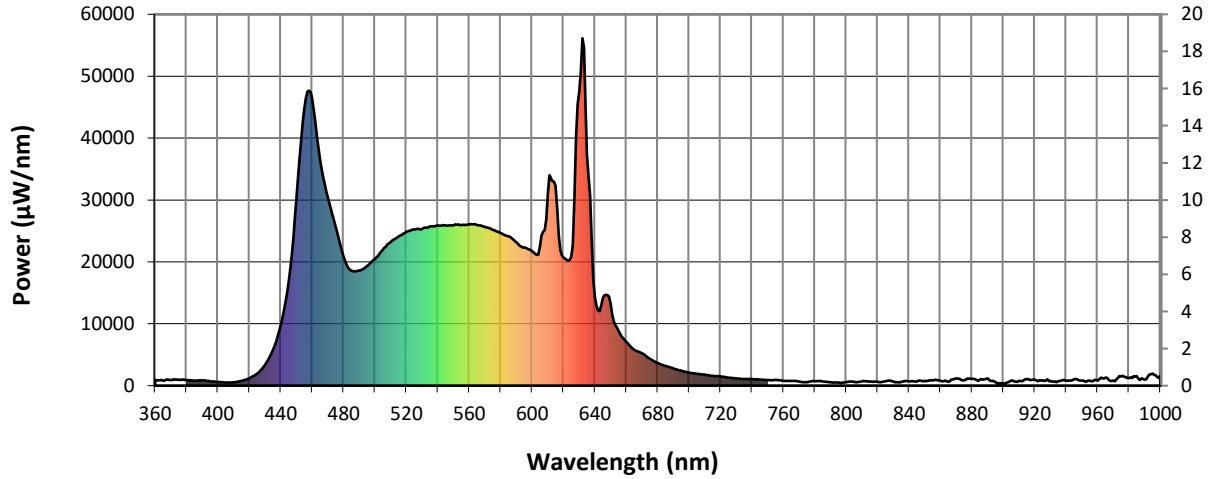
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 5000K 4-step quadrangle

REPORT NUMBER: SP1-2405-083-5

Photopic Flux vs. Wavelength

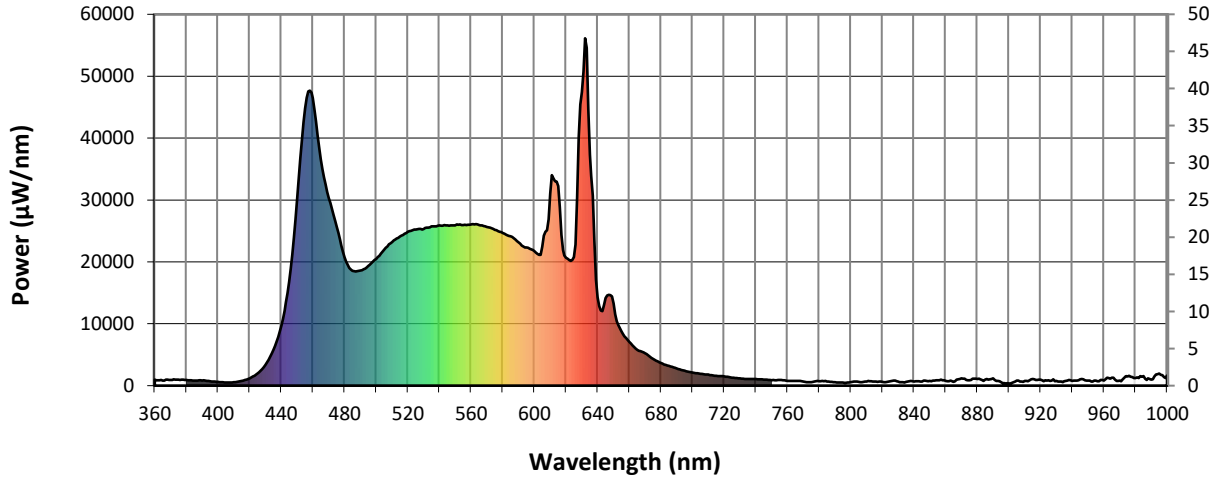


#####

λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)
360	988	NR	490	18593	NR	620	20653	NR	750	882	NR	880	1072	NR
365	843	NR	495	19319	NR	625	20795	NR	755	916	NR	885	959	NR
370	901	NR	500	20480	NR	630	47435	NR	760	783	NR	890	1204	NR
375	969	NR	505	21956	NR	635	37308	NR	765	742	NR	895	541	NR
380	900	NR	510	23220	NR	640	14261	NR	770	676	NR	900	360	NR
385	791	NR	515	24079	NR	645	14181	NR	775	578	NR	905	809	NR
390	830	NR	520	24864	NR	650	13270	NR	780	701	NR	910	750	NR
395	716	NR	525	25214	NR	655	8846	NR	785	669	NR	915	1068	NR
400	587	NR	530	25347	NR	660	7055	NR	790	558	NR	920	977	NR
405	520	NR	535	25755	NR	665	5781	NR	795	530	NR	925	876	NR
410	546	NR	540	25872	NR	670	5228	NR	800	557	NR	930	786	NR
415	764	NR	545	25871	NR	675	4310	NR	805	631	NR	935	689	NR
420	1172	NR	550	25919	NR	680	3649	NR	810	682	NR	940	753	NR
425	1976	NR	555	25971	NR	685	3186	NR	815	647	NR	945	1040	NR
430	3373	NR	560	26060	NR	690	2780	NR	820	624	NR	950	833	NR
435	5782	NR	565	25929	NR	695	2404	NR	825	692	NR	955	796	NR
440	9718	NR	570	25647	NR	700	2120	NR	830	641	NR	960	795	NR
445	16746	NR	575	25180	NR	705	1919	NR	835	586	NR	965	1285	NR
450	30151	NR	580	24656	NR	710	1783	NR	840	662	NR	970	817	NR
455	44808	NR	585	24146	NR	715	1599	NR	845	676	NR	975	1486	NR
460	46459	NR	590	23168	NR	720	1492	NR	850	776	NR	980	1230	NR
465	36568	NR	595	22318	NR	725	1292	NR	855	875	NR	985	1556	NR
470	30281	NR	600	21717	NR	730	1172	NR	860	774	NR	990	976	NR
475	25628	NR	605	22415	NR	735	1096	NR	865	629	NR	995	1941	NR
480	20800	NR	610	31087	NR	740	1073	NR	870	1191	NR	1000	1658	NR
485	18554	NR	615	32248	NR	745	970	NR	875	861	NR			

REPORT NUMBER: SP1-2405-083-5

Scotopic Flux vs. Wavelength



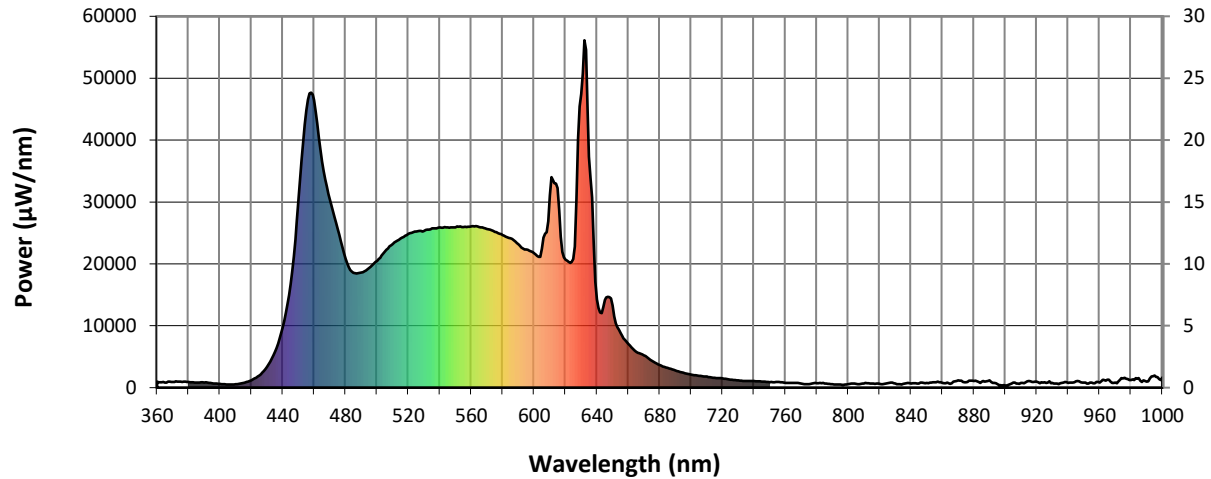
Scotopic Lumens: 3980.7

S/P: 2.2

λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)
360	988	NR	490	18593	NR	620	20653	NR	750	882	NR	880	1072	NR
365	843	NR	495	19319	NR	625	20795	NR	755	916	NR	885	959	NR
370	901	NR	500	20480	NR	630	47435	NR	760	783	NR	890	1204	NR
375	969	NR	505	21956	NR	635	37308	NR	765	742	NR	895	541	NR
380	900	NR	510	23220	NR	640	14261	NR	770	676	NR	900	360	NR
385	791	NR	515	24079	NR	645	14181	NR	775	578	NR	905	809	NR
390	830	NR	520	24864	NR	650	13270	NR	780	701	NR	910	750	NR
395	716	NR	525	25214	NR	655	8846	NR	785	669	NR	915	1068	NR
400	587	NR	530	25347	NR	660	7055	NR	790	558	NR	920	977	NR
405	520	NR	535	25755	NR	665	5781	NR	795	530	NR	925	876	NR
410	546	NR	540	25872	NR	670	5228	NR	800	557	NR	930	786	NR
415	764	NR	545	25871	NR	675	4310	NR	805	631	NR	935	689	NR
420	1172	NR	550	25919	NR	680	3649	NR	810	682	NR	940	753	NR
425	1976	NR	555	25971	NR	685	3186	NR	815	647	NR	945	1040	NR
430	3373	NR	560	26060	NR	690	2780	NR	820	624	NR	950	833	NR
435	5782	NR	565	25929	NR	695	2404	NR	825	692	NR	955	796	NR
440	9718	NR	570	25647	NR	700	2120	NR	830	641	NR	960	795	NR
445	16746	NR	575	25180	NR	705	1919	NR	835	586	NR	965	1285	NR
450	30151	NR	580	24656	NR	710	1783	NR	840	662	NR	970	817	NR
455	44808	NR	585	24146	NR	715	1599	NR	845	676	NR	975	1486	NR
460	46459	NR	590	23168	NR	720	1492	NR	850	776	NR	980	1230	NR
465	36568	NR	595	22318	NR	725	1292	NR	855	875	NR	985	1556	NR
470	30281	NR	600	21717	NR	730	1172	NR	860	774	NR	990	976	NR
475	25628	NR	605	22415	NR	735	1096	NR	865	629	NR	995	1941	NR
480	20800	NR	610	31087	NR	740	1073	NR	870	1191	NR	1000	1658	NR
485	18554	NR	615	32248	NR	745	970	NR	875	861	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: 1744.8 M/P: 0.97

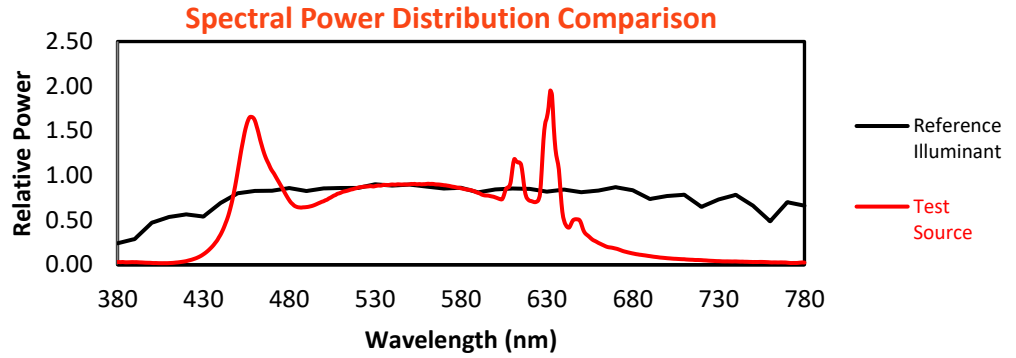
λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)	λ (nm)	Power ($\mu\text{W}/\text{nm}$)	Lumens (ϕ/nm)
360	988	NR	490	18593	NR	620	20653	NR	750	882	NR	880	1072	NR
365	843	NR	495	19319	NR	625	20795	NR	755	916	NR	885	959	NR
370	901	NR	500	20480	NR	630	47435	NR	760	783	NR	890	1204	NR
375	969	NR	505	21956	NR	635	37308	NR	765	742	NR	895	541	NR
380	900	NR	510	23220	NR	640	14261	NR	770	676	NR	900	360	NR
385	791	NR	515	24079	NR	645	14181	NR	775	578	NR	905	809	NR
390	830	NR	520	24864	NR	650	13270	NR	780	701	NR	910	750	NR
395	716	NR	525	25214	NR	655	8846	NR	785	669	NR	915	1068	NR
400	587	NR	530	25347	NR	660	7055	NR	790	558	NR	920	977	NR
405	520	NR	535	25755	NR	665	5781	NR	795	530	NR	925	876	NR
410	546	NR	540	25872	NR	670	5228	NR	800	557	NR	930	786	NR
415	764	NR	545	25871	NR	675	4310	NR	805	631	NR	935	689	NR
420	1172	NR	550	25919	NR	680	3649	NR	810	682	NR	940	753	NR
425	1976	NR	555	25971	NR	685	3186	NR	815	647	NR	945	1040	NR
430	3373	NR	560	26060	NR	690	2780	NR	820	624	NR	950	833	NR
435	5782	NR	565	25929	NR	695	2404	NR	825	692	NR	955	796	NR
440	9718	NR	570	25647	NR	700	2120	NR	830	641	NR	960	795	NR
445	16746	NR	575	25180	NR	705	1919	NR	835	586	NR	965	1285	NR
450	30151	NR	580	24656	NR	710	1783	NR	840	662	NR	970	817	NR
455	44808	NR	585	24146	NR	715	1599	NR	845	676	NR	975	1486	NR
460	46459	NR	590	23168	NR	720	1492	NR	850	776	NR	980	1230	NR
465	36568	NR	595	22318	NR	725	1292	NR	855	875	NR	985	1556	NR
470	30281	NR	600	21717	NR	730	1172	NR	860	774	NR	990	976	NR
475	25628	NR	605	22415	NR	735	1096	NR	865	629	NR	995	1941	NR
480	20800	NR	610	31087	NR	740	1073	NR	870	1191	NR	1000	1658	NR
485	18554	NR	615	32248	NR	745	970	NR	875	861	NR			

REPORT NUMBER: SP1-2405-083-5

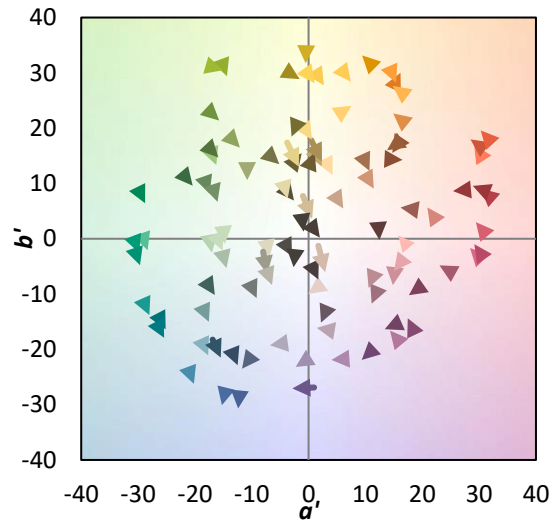
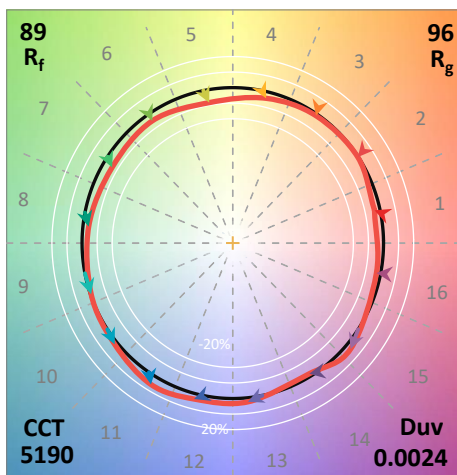
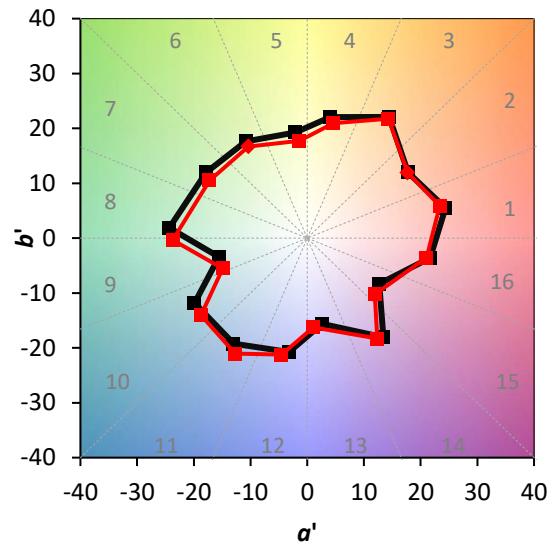
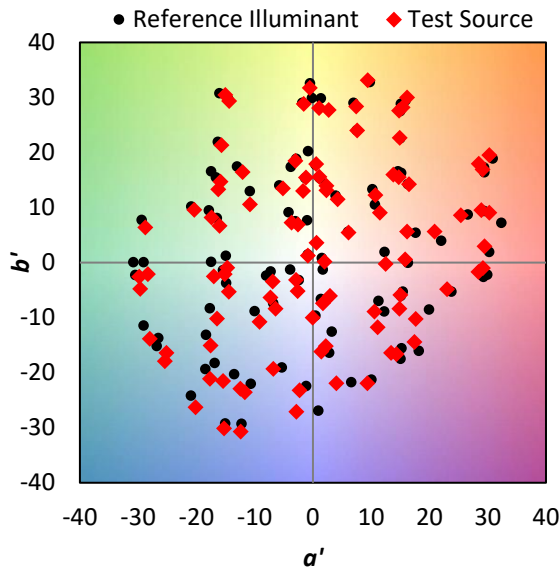
TM-30-18

Summary

$R_f = 88.7$
 $R_g = 96.2$
 CIE $R_a = 94.7$
 $R_9 = 85.7$



Color Vector Graphics

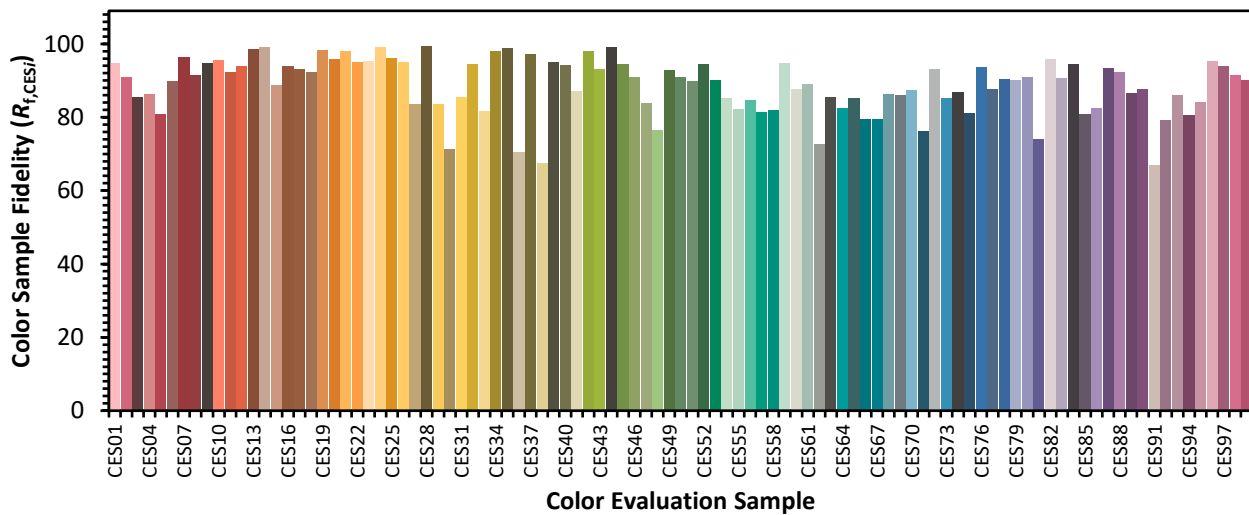


REPORT NUMBER: SP1-2405-083-5

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

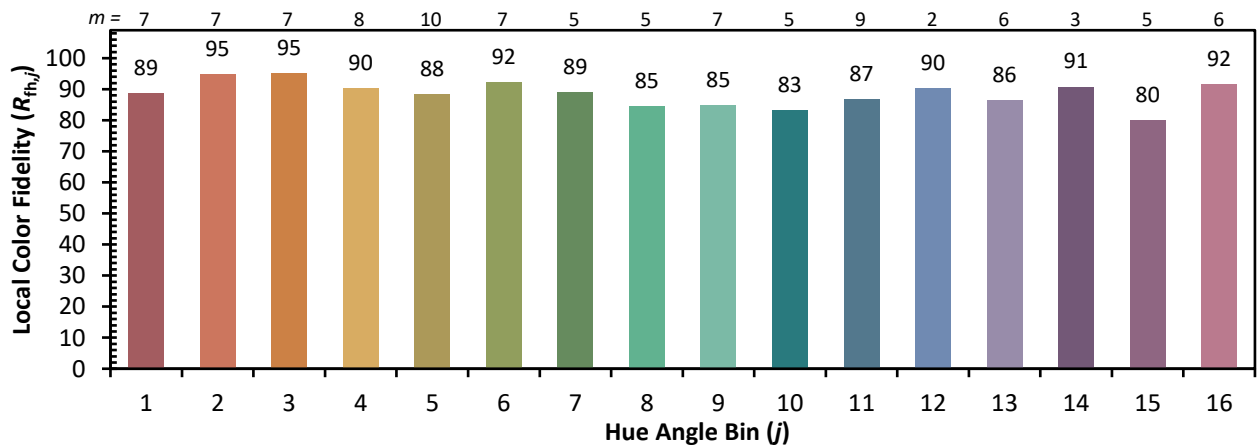
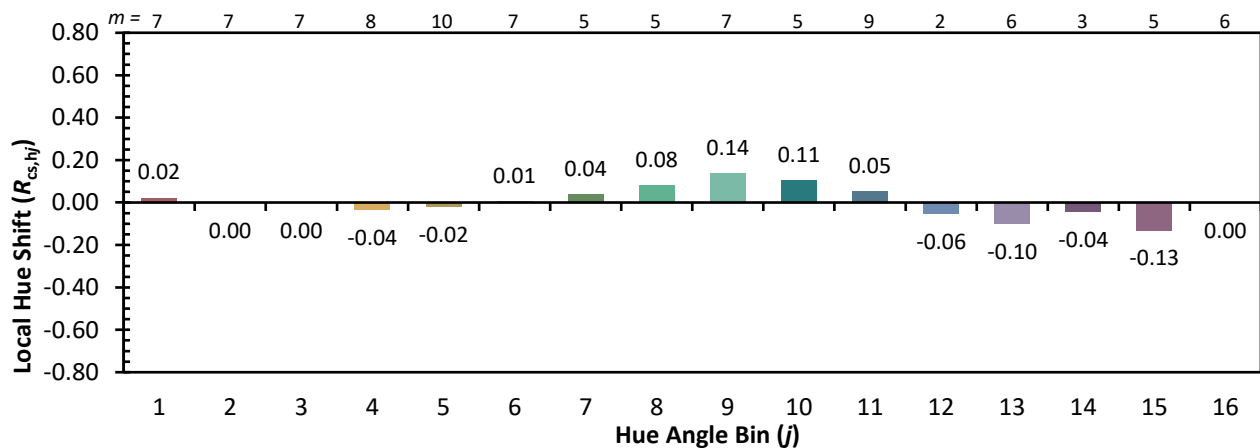
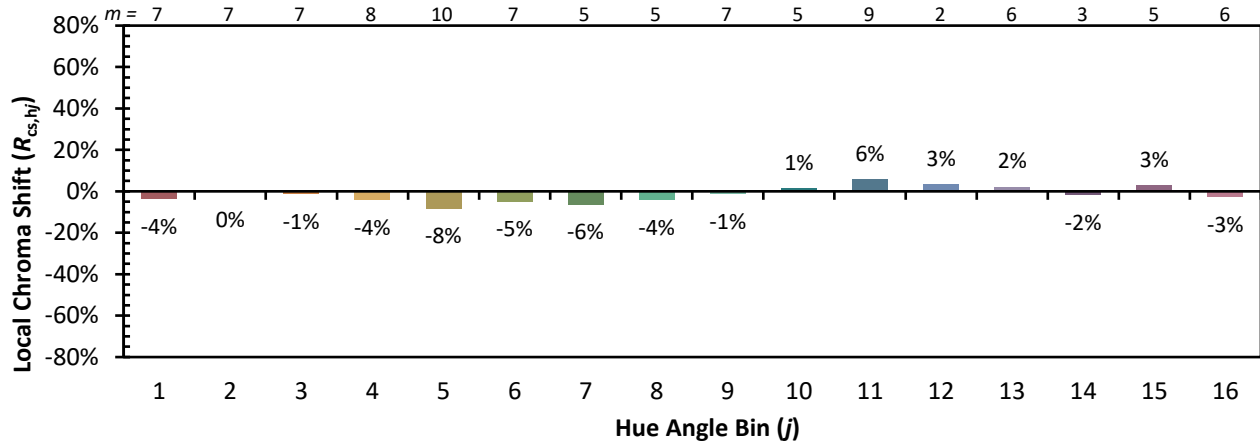
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CES02 = 61	CES27 = 84	CES52 = 95	CES77 = 88
CES03 = 31	CES28 = 99	CES53 = 90	CES78 = 90
CES04 = 68	CES29 = 83	CES54 = 85	CES79 = 90
CES05 = 48	CES30 = 71	CES55 = 82	CES80 = 91
CES06 = 50	CES31 = 86	CES56 = 85	CES81 = 74
CES07 = 41	CES32 = 94	CES57 = 81	CES82 = 96
CES08 = 40	CES33 = 82	CES58 = 82	CES83 = 91
CES09 = 29	CES34 = 98	CES59 = 95	CES84 = 94
CES10 = 73	CES35 = 99	CES60 = 88	CES85 = 81
CES11 = 55	CES36 = 70	CES61 = 89	CES86 = 82
CES12 = 62	CES37 = 97	CES62 = 73	CES87 = 93
CES13 = 42	CES38 = 68	CES63 = 86	CES88 = 92
CES14 = 74	CES39 = 95	CES64 = 82	CES89 = 87
CES15 = 71	CES40 = 94	CES65 = 85	CES90 = 88
CES16 = 46	CES41 = 87	CES66 = 79	CES91 = 67
CES17 = 48	CES42 = 98	CES67 = 79	CES92 = 79
CES18 = 56	CES43 = 93	CES68 = 86	CES93 = 86
CES19 = 70	CES44 = 99	CES69 = 86	CES94 = 81
CES20 = 65	CES45 = 94	CES70 = 87	CES95 = 84
CES21 = 84	CES46 = 91	CES71 = 76	CES96 = 95
CES22 = 77	CES47 = 84	CES72 = 93	CES97 = 94
CES23 = 91	CES48 = 76	CES73 = 85	CES98 = 91
CES24 = 89	CES49 = 93	CES74 = 87	CES99 = 90
CES25 = 70	CES50 = 91	CES75 = 81	



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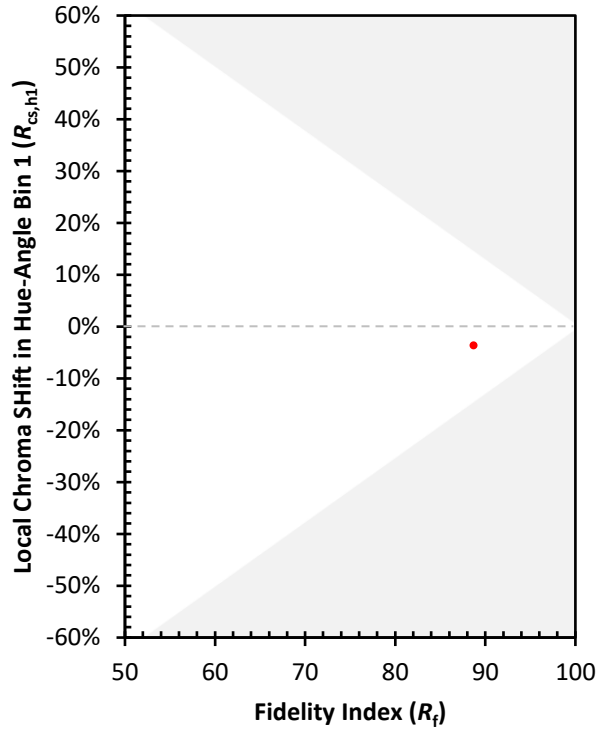
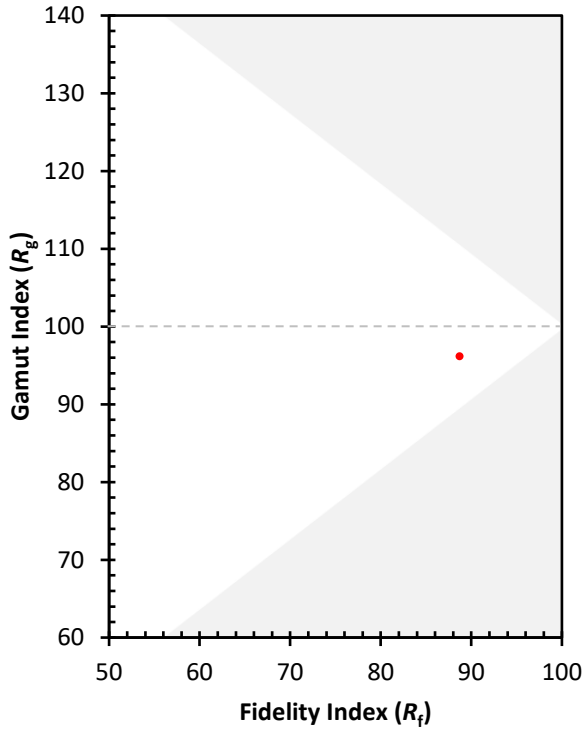
Color Rendition by Hue-Angle Bin



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TM-30-18

Measure Comparisons



(END OF REPORT)