

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: P832487

Luminaire Tested: **7ORB15FS-1PK-ED-CA-935**

Issue Date: 05/08/2024



Test Information

Test Method: LM-79-08
Report Number: P832487
Test Lab: Intertek
Issue Date: 05/08/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: 7ORB15FS-1PK-ED-CA-935
Description: 7 inch 90 CRI COLOR SELECTABLE SPIN LIGHT WITH E26 BASE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

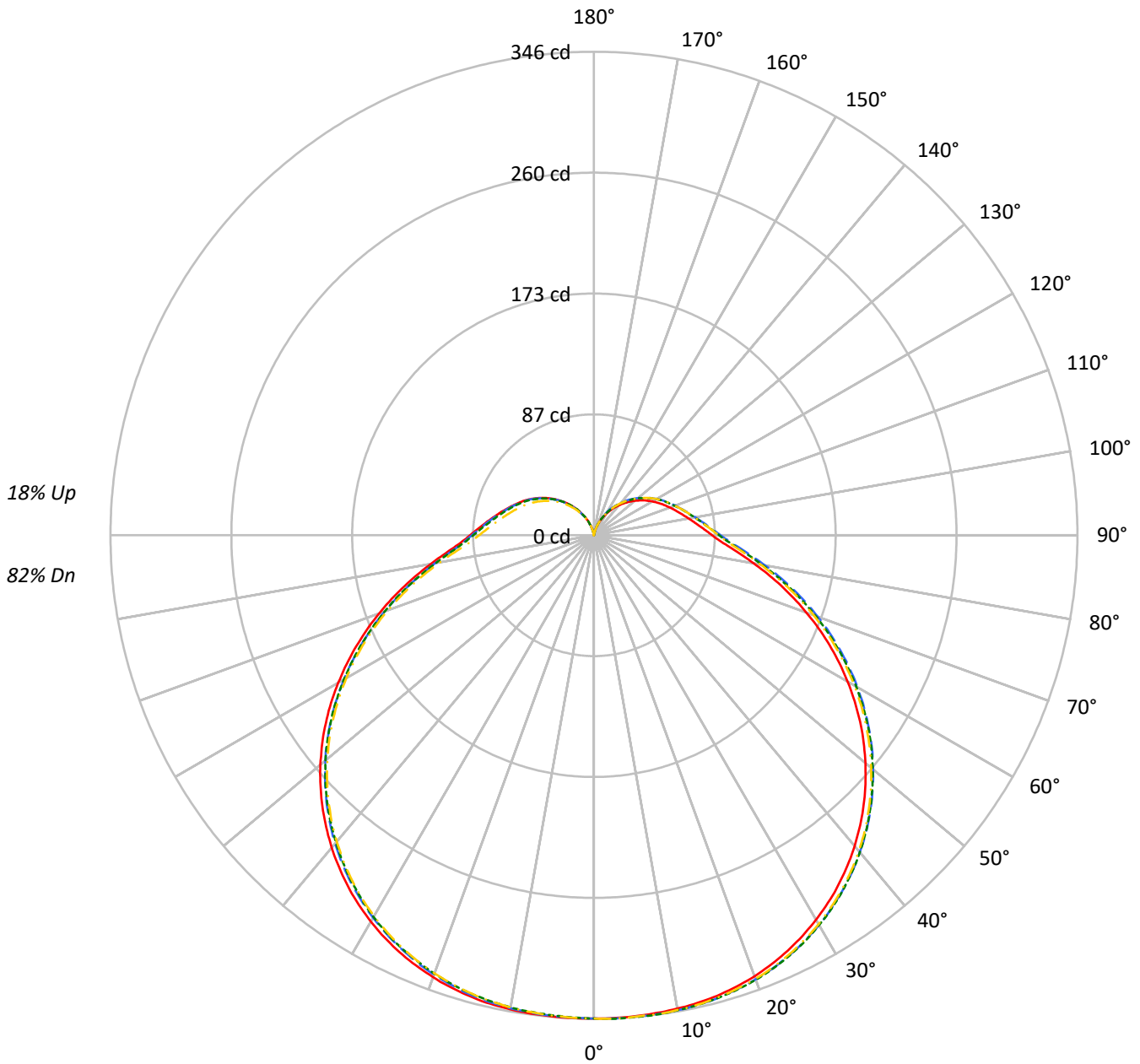
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1640.1 lumens
Efficiency: N/A
Efficacy: 105.1 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): 15.6
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	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	82													
1	102	96	91	86	97	92	87	83	84	80	77	77	74	71	71	68	66	63													
2	92	82	74	68	87	79	72	66	72	66	61	66	61	57	60	57	53	50													
3	83	71	62	55	79	68	60	54	63	56	50	57	52	47	52	48	44	41													
4	75	63	53	46	72	60	51	45	55	48	42	51	45	40	46	41	37	34													
5	69	56	46	39	66	53	45	38	49	42	36	45	39	34	41	36	32	29													
6	64	50	40	34	60	48	39	33	44	37	31	41	34	29	37	32	28	25													
7	59	45	36	29	56	43	35	29	40	33	27	37	30	26	34	29	24	22													
8	55	41	32	26	52	39	31	25	36	29	24	34	27	23	31	26	22	19													
9	51	37	29	23	48	36	28	23	33	26	22	31	25	20	29	23	19	17													
10	48	34	26	21	45	33	25	20	31	24	19	29	23	18	27	21	18	16													

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	13168	13168	13168	13168
5°	12618	12643	12625	12592
10°	12157	12203	12182	12129
15°	11774	11829	11791	11719
20°	11406	11498	11430	11338
25°	11045	11170	11086	10978
30°	10694	10843	10745	10614
35°	10342	10518	10396	10251
40°	9983	10179	10038	9880
45°	9603	9825	9667	9498
50°	9202	9452	9274	9104
55°	8776	9044	8844	8663
60°	8321	8598	8384	8202
65°	7838	8129	7905	7711
70°	7328	7645	7410	7215
75°	6827	7157	6920	6728
80°	6355	6694	6486	6295
85°	6029	6369	6221	6041



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.9	2.0
10°-20°	96.5	5.9
20°-30°	151.7	9.2
30°-40°	191.8	11.7
40°-50°	211.7	12.9
50°-60°	209.1	12.8
60°-70°	185.7	11.3
70°-80°	148.2	9.0
80°-90°	110.0	6.7
90°-100°	86.3	5.3
100°-110°	69.8	4.3
110°-120°	55.3	3.4
120°-130°	41.0	2.5
130°-140°	27.1	1.6
140°-150°	15.1	0.9
150°-160°	6.3	0.4
160°-170°	1.4	0.1
170°-180°	0.0	0.0
0°-30°	281.2	17.1
0°-40°	473.0	28.8
0°-60°	893.9	54.5
0°-90°	1337.8	81.6
90°-120°	211.4	12.9
90°-150°	294.6	18.0
90°-180°	302.0	18.4
0°-180°	1640.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	346	346	346	346	346	
5°	346	346	346	345	346	33
15°	341	343	342	340	341	96
25°	328	332	329	326	328	151
35°	305	310	307	302	305	191
45°	273	279	275	270	273	211
55°	232	240	234	229	232	208
65°	186	193	188	183	186	184
75°	138	145	140	136	138	146
85°	98	103	101	98	98	84
90°	85	90	89	86	85	46
95°	76	80	80	78	76	61
105°	63	67	67	66	63	67
115°	53	57	57	56	53	53
125°	44	46	47	46	44	39
135°	33	35	35	35	33	26
145°	23	24	24	24	23	15
155°	13	14	13	13	13	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°	345.9	345.9	345.9	345.9	345.9	345.9	345.9	345.9	345.9	345.9	345.9
1°	345.9	346.0	346.0	345.8	346.1	346.0	346.1	346.0	345.9	346.0	345.7
2°	345.9	346.2	346.1	345.8	346.3	346.2	346.2	345.9	345.9	346.0	345.6
3°	345.7	346.1	346.1	345.9	346.3	346.1	346.1	346.0	345.9	346.0	345.5
4°	345.7	346.0	346.0	345.9	346.2	346.2	346.1	345.9	345.9	345.8	345.4
5°	345.5	345.9	345.8	345.9	346.2	346.0	345.9	345.9	345.7	345.6	345.3
6°	345.2	345.7	345.9	345.8	346.1	346.1	345.7	345.9	345.5	345.4	345.0
7°	345.0	345.6	345.9	345.8	346.1	346.0	345.7	345.9	345.3	345.3	344.8
8°	344.7	345.5	345.7	345.7	345.9	345.9	345.7	345.5	345.2	345.0	344.4
9°	344.4	345.2	345.5	345.5	345.6	345.7	345.4	345.4	344.9	344.7	344.2
10°	343.9	344.7	345.2	345.3	345.2	345.6	345.0	345.2	344.6	344.2	343.8
11°	343.6	344.5	345.0	345.1	344.8	345.2	344.8	345.0	344.1	343.8	343.3
12°	343.1	344.1	344.5	344.8	344.5	345.0	344.3	344.4	343.7	343.3	342.6
13°	342.5	343.5	344.1	344.4	344.0	344.6	343.8	343.8	343.2	342.7	342.0
14°	341.9	342.7	343.6	343.9	343.5	344.1	343.2	343.3	342.6	342.0	341.3
15°	341.2	342.2	342.8	343.2	342.8	343.6	342.4	342.5	341.7	341.2	340.4
16°	340.2	341.3	342.0	342.5	342.2	342.9	341.7	341.8	340.9	340.3	339.6
17°	339.3	340.3	341.2	341.7	341.5	342.1	340.9	340.9	339.9	339.3	338.3
18°	338.3	339.4	340.2	340.9	340.6	341.2	339.9	339.9	338.9	338.3	337.3
19°	337.1	338.4	339.4	339.9	339.6	340.3	339.0	338.9	337.9	337.0	336.0
20°	335.9	337.2	338.3	338.8	338.6	339.2	337.9	337.8	336.6	335.8	334.7
21°	334.5	335.9	337.0	337.8	337.4	337.9	336.7	336.5	335.2	334.5	333.3
22°	333.0	334.6	335.9	336.5	336.1	336.6	335.4	335.1	333.9	333.1	331.8
23°	331.5	333.2	334.5	335.3	334.8	335.3	333.9	333.7	332.4	331.4	330.0
24°	329.8	331.5	333.0	334.0	333.3	333.7	332.4	332.1	330.9	329.6	328.2
25°	328.0	329.8	331.5	332.4	331.7	332.2	330.8	330.6	329.2	327.9	326.5
26°	326.1	328.1	329.8	330.8	330.0	330.4	329.2	328.7	327.5	326.1	324.6
27°	324.3	326.3	328.1	329.1	328.3	328.6	327.3	327.0	325.5	324.1	322.6
28°	322.1	324.5	326.1	327.3	326.4	326.8	325.4	325.0	323.6	322.2	320.5
29°	320.1	322.3	324.2	325.5	324.4	324.7	323.5	323.0	321.5	320.0	318.3
30°	317.8	320.1	322.1	323.5	322.2	322.7	321.4	320.6	319.3	317.8	316.1
31°	315.4	317.9	320.0	321.3	320.1	320.4	319.2	318.5	317.0	315.5	313.7
32°	313.1	315.6	317.7	319.0	317.8	318.1	316.8	316.2	314.6	313.1	311.2
33°	310.5	313.1	315.3	316.8	315.4	315.7	314.5	313.8	312.1	310.5	308.6
34°	308.0	310.5	312.8	314.3	313.0	313.1	312.0	311.1	309.6	307.9	305.9
35°	305.2	308.0	310.3	312.0	310.4	310.6	309.4	308.5	306.8	305.1	303.3
36°	302.4	305.2	307.7	309.4	307.7	307.9	306.8	305.7	304.0	302.3	300.4
37°	299.5	302.4	305.0	306.6	304.9	305.1	303.9	302.9	301.1	299.4	297.4
38°	296.5	299.4	302.1	303.9	302.1	302.3	301.1	299.9	298.1	296.4	294.4
39°	293.4	296.4	299.3	300.9	299.2	299.3	298.0	296.8	295.2	293.2	291.3
40°	290.3	293.3	296.1	298.0	296.0	296.1	295.0	293.8	291.9	290.0	288.1
41°	286.9	290.1	293.1	294.8	292.9	292.9	291.7	290.5	288.6	286.7	284.8
42°	283.6	286.8	289.9	291.9	289.6	289.8	288.6	287.3	285.3	283.4	281.4
43°	280.2	283.5	286.5	288.6	286.3	286.4	285.1	283.8	281.9	279.8	277.8
44°	276.7	280.0	283.2	285.2	282.8	283.0	281.7	280.3	278.3	276.3	274.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	273.0	276.4	279.6	281.8	279.3	279.4	278.0	276.7	274.8	272.6	270.6
46°	269.3	272.8	276.0	278.3	275.7	275.8	274.4	273.1	271.2	268.9	266.7
47°	265.5	269.1	272.4	274.7	271.9	272.1	270.7	269.3	267.3	265.0	262.9
48°	261.6	265.3	268.6	271.0	268.2	268.3	266.8	265.5	263.5	261.2	258.9
49°	257.6	261.4	264.8	267.2	264.4	264.4	262.9	261.5	259.7	257.2	255.0
50°	253.6	257.4	260.8	263.4	260.5	260.4	258.9	257.5	255.6	253.1	250.9
51°	249.5	253.4	256.8	259.2	256.4	256.4	254.9	253.5	251.3	249.0	246.9
52°	245.3	249.2	252.9	255.1	252.3	252.2	250.7	249.3	247.2	244.8	242.6
53°	241.2	245.0	248.6	251.1	248.1	247.9	246.5	245.1	243.0	240.4	238.3
54°	236.8	240.8	244.4	246.8	243.9	243.6	242.1	240.8	238.7	236.1	233.9
55°	232.4	236.5	240.1	242.6	239.5	239.4	237.8	236.3	234.2	231.7	229.5
56°	227.9	232.1	235.8	238.3	235.1	235.0	233.4	231.8	229.8	227.3	225.0
57°	223.5	227.6	231.3	233.9	230.6	230.5	228.9	227.3	225.3	222.7	220.5
58°	219.0	223.1	227.0	229.5	226.0	226.0	224.4	222.7	220.7	218.1	215.9
59°	214.3	218.5	222.3	225.0	221.3	221.4	219.7	218.1	216.1	213.6	211.3
60°	209.7	214.0	217.8	220.5	216.7	216.8	215.1	213.5	211.3	208.9	206.6
61°	205.0	209.3	213.3	216.0	212.0	212.1	210.5	208.8	206.5	204.3	202.0
62°	200.3	204.6	208.5	211.3	207.2	207.3	205.7	204.1	201.8	199.5	197.3
63°	195.6	199.9	203.9	206.7	202.5	202.5	201.0	199.2	197.1	194.8	192.5
64°	190.8	195.1	199.1	201.9	197.7	197.6	196.2	194.5	192.2	190.0	187.7
65°	186.0	190.3	194.3	197.1	192.9	192.8	191.4	189.7	187.6	185.2	183.0
66°	181.2	185.6	189.7	192.4	188.1	188.1	186.6	184.9	182.7	180.5	178.2
67°	176.4	180.7	184.8	187.5	183.3	183.3	181.9	180.1	177.9	175.7	173.5
68°	171.6	176.0	180.1	182.7	178.5	178.5	176.9	175.3	173.2	170.9	168.8
69°	166.6	171.2	175.3	177.8	173.6	173.6	172.2	170.5	168.4	166.1	163.9
70°	161.8	166.3	170.4	173.0	168.8	168.7	167.3	165.6	163.6	161.4	159.3
71°	157.1	161.5	165.7	168.3	164.0	163.8	162.5	160.9	158.9	156.7	154.6
72°	152.4	156.8	160.9	163.5	159.2	159.0	157.6	156.1	154.1	152.0	149.9
73°	147.6	152.0	156.1	158.8	154.4	154.2	152.9	151.4	149.4	147.3	145.3
74°	142.9	147.4	151.4	153.9	149.7	149.5	148.1	146.7	144.8	142.7	140.8
75°	138.3	142.7	146.7	149.3	145.0	144.8	143.5	142.0	140.2	138.2	136.3
76°	133.7	138.1	142.1	144.6	140.2	140.1	138.7	137.4	135.7	133.8	131.9
77°	129.2	133.6	137.5	140.0	135.7	135.5	134.3	132.9	131.3	129.4	127.6
78°	124.8	129.0	133.0	135.5	131.1	130.9	129.8	128.5	127.0	125.2	123.4
79°	120.4	124.7	128.6	130.9	126.7	126.5	125.4	124.2	122.7	121.0	119.3
80°	116.2	120.4	124.3	126.6	122.4	122.2	121.1	120.0	118.6	117.1	115.4
81°	112.2	116.3	120.1	122.3	118.1	118.0	117.0	116.0	114.7	113.3	111.5
82°	108.3	112.3	115.9	118.2	114.1	114.0	113.0	112.1	110.8	109.4	107.9
83°	104.4	108.4	112.0	114.1	110.2	110.0	109.2	108.4	107.2	105.9	104.5
84°	100.9	104.7	108.3	110.3	106.5	106.4	105.6	104.8	103.8	102.6	101.2
85°	97.5	101.2	104.7	106.6	103.0	102.9	102.2	101.5	100.6	99.5	98.3
86°	94.4	98.0	101.3	103.2	99.8	99.7	99.0	98.5	97.6	96.6	95.5
87°	91.5	95.0	98.2	99.9	96.8	96.7	96.1	95.7	95.0	94.2	93.2
88°	88.9	92.3	95.4	97.0	94.1	94.0	93.5	93.2	92.6	91.9	91.1
89°	86.6	89.8	92.8	94.3	91.7	91.6	91.3	91.0	90.5	89.9	89.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	84.6	87.7	90.6	91.9	89.6	89.6	89.2	89.1	88.6	88.1	87.3
91°	82.7	85.7	88.5	89.8	87.6	87.6	87.3	87.2	86.8	86.3	85.6
92°	80.9	83.8	86.6	87.8	85.7	85.7	85.5	85.4	85.1	84.5	83.9
93°	79.1	82.0	84.7	85.9	83.9	83.9	83.7	83.7	83.4	82.9	82.3
94°	77.5	80.3	83.0	84.1	82.2	82.2	82.1	82.0	81.8	81.3	80.8
95°	75.8	78.6	81.2	82.4	80.5	80.6	80.5	80.5	80.2	79.8	79.3
96°	74.3	77.0	79.6	80.7	79.0	79.0	78.9	78.9	78.7	78.4	77.9
97°	72.8	75.5	78.0	79.1	77.4	77.5	77.4	77.5	77.3	77.0	76.5
98°	71.5	74.1	76.5	77.6	76.0	76.0	76.0	76.0	75.9	75.6	75.2
99°	70.1	72.6	75.1	76.1	74.6	74.6	74.6	74.7	74.6	74.3	73.9
100°	68.8	71.3	73.7	74.7	73.2	73.3	73.3	73.4	73.3	73.0	72.6
101°	67.6	70.0	72.4	73.3	71.9	72.0	72.0	72.1	72.0	71.7	71.3
102°	66.4	68.7	71.1	72.0	70.6	70.7	70.7	70.8	70.8	70.5	70.2
103°	65.2	67.5	69.8	70.7	69.4	69.5	69.5	69.6	69.6	69.4	69.0
104°	64.1	66.3	68.6	69.5	68.2	68.3	68.3	68.4	68.5	68.2	67.8
105°	63.0	65.1	67.4	68.3	67.0	67.2	67.2	67.3	67.3	67.1	66.7
106°	61.9	64.0	66.3	67.1	65.9	66.0	66.1	66.2	66.2	66.0	65.6
107°	60.9	63.0	65.2	66.0	64.8	64.9	65.0	65.1	65.1	64.9	64.6
108°	59.9	61.9	64.0	64.9	63.7	63.8	63.9	64.0	64.0	63.8	63.5
109°	58.9	60.9	63.0	63.8	62.6	62.8	62.8	62.9	63.0	62.8	62.5
110°	57.9	59.9	62.0	62.7	61.6	61.7	61.7	61.9	61.9	61.7	61.5
111°	56.9	58.9	60.9	61.7	60.5	60.7	60.7	60.8	60.9	60.7	60.4
112°	56.0	57.9	59.9	60.7	59.5	59.7	59.7	59.8	59.9	59.7	59.4
113°	55.0	56.9	58.9	59.7	58.5	58.7	58.7	58.8	58.9	58.7	58.5
114°	54.1	55.9	57.9	58.6	57.6	57.8	57.8	57.9	58.0	57.8	57.6
115°	53.1	55.0	56.9	57.6	56.7	56.9	56.9	57.0	57.0	56.9	56.8
116°	52.2	54.0	55.9	56.6	55.8	56.0	55.9	56.1	56.1	55.9	55.7
117°	51.2	53.0	54.9	55.6	54.8	54.9	54.9	55.1	55.1	54.9	54.7
118°	50.3	52.0	53.9	54.6	53.8	53.9	53.9	54.0	54.0	53.9	53.6
119°	49.3	51.1	52.9	53.6	52.7	52.9	52.9	53.0	53.0	52.8	52.6
120°	48.4	50.1	51.9	52.6	51.7	51.8	51.8	51.9	51.9	51.7	51.6
121°	47.4	49.1	50.8	51.5	50.7	50.8	50.8	50.9	50.9	50.7	50.5
122°	46.4	48.1	49.8	50.5	49.6	49.7	49.7	49.8	49.8	49.6	49.4
123°	45.4	47.1	48.8	49.4	48.6	48.7	48.7	48.7	48.7	48.5	48.3
124°	44.5	46.1	47.7	48.4	47.5	47.6	47.6	47.7	47.7	47.4	47.2
125°	43.5	45.1	46.7	47.3	46.4	46.5	46.5	46.6	46.6	46.3	46.1
126°	42.4	44.1	45.7	46.3	45.4	45.4	45.4	45.5	45.5	45.2	45.1
127°	41.5	43.0	44.6	45.2	44.2	44.4	44.4	44.4	44.4	44.1	43.9
128°	40.4	42.0	43.5	44.1	43.2	43.3	43.3	43.3	43.3	43.0	42.8
129°	39.4	40.9	42.5	43.0	42.1	42.2	42.2	42.2	42.2	41.9	41.7
130°	38.4	39.9	41.4	42.0	41.0	41.1	41.1	41.1	41.1	40.8	40.6
131°	37.4	38.8	40.3	40.8	39.9	40.0	40.0	40.0	39.9	39.6	39.5
132°	36.3	37.8	39.3	39.8	38.8	38.9	38.9	38.9	38.8	38.5	38.3
133°	35.3	36.7	38.1	38.7	37.7	37.8	37.8	37.7	37.7	37.4	37.2
134°	34.3	35.7	37.1	37.6	36.6	36.7	36.7	36.6	36.6	36.3	36.1

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



TEST NUMBER: P832487

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-935

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
135°	33.2	34.6	36.0	36.5	35.4	35.5	35.5	35.5	35.4	35.1	35.0
136°	32.2	33.6	34.9	35.4	34.3	34.4	34.4	34.4	34.3	34.0	33.8
137°	31.1	32.5	33.8	34.3	33.2	33.3	33.3	33.3	33.2	32.9	32.7
138°	30.1	31.4	32.7	33.2	32.1	32.2	32.2	32.2	32.0	31.7	31.5
139°	29.1	30.3	31.6	32.1	31.0	31.1	31.1	31.0	30.9	30.6	30.4
140°	28.0	29.3	30.5	31.0	29.8	29.9	29.9	29.9	29.7	29.5	29.2
141°	27.0	28.2	29.4	29.8	28.7	28.8	28.8	28.8	28.6	28.3	28.1
142°	26.0	27.1	28.3	28.7	27.6	27.7	27.7	27.7	27.5	27.2	27.0
143°	25.0	26.2	27.2	27.6	26.5	26.6	26.6	26.5	26.4	26.1	25.8
144°	24.0	25.1	26.0	26.5	25.4	25.5	25.5	25.4	25.2	24.9	24.7
145°	22.9	24.1	25.0	25.4	24.3	24.4	24.4	24.3	24.1	23.8	23.6
146°	21.9	23.0	24.0	24.4	23.2	23.3	23.3	23.2	23.0	22.7	22.4
147°	20.9	21.9	23.0	23.3	22.1	22.1	22.2	22.1	21.9	21.6	21.3
148°	19.8	20.9	21.9	22.2	21.0	21.1	21.1	21.0	20.8	20.5	20.2
149°	18.8	19.8	20.8	21.1	19.9	20.0	20.0	19.9	19.7	19.4	19.1
150°	17.8	18.8	19.7	20.0	18.8	18.9	18.9	18.8	18.6	18.3	18.0
151°	16.8	17.7	18.6	19.0	17.7	17.8	17.8	17.7	17.5	17.2	16.9
152°	15.8	16.7	17.5	17.9	16.7	16.7	16.7	16.7	16.5	16.1	15.8
153°	14.8	15.7	16.5	16.8	15.6	15.7	15.7	15.6	15.4	15.1	14.8
154°	13.8	14.7	15.4	15.8	14.5	14.6	14.6	14.6	14.4	14.0	13.7
155°	12.8	13.7	14.4	14.7	13.5	13.6	13.6	13.5	13.3	13.0	12.7
156°	11.9	12.7	13.4	13.7	12.5	12.6	12.6	12.5	12.3	12.0	11.7
157°	10.9	11.7	12.4	12.7	11.5	11.6	11.6	11.5	11.3	11.0	10.7
158°	10.0	10.7	11.4	11.7	10.5	10.6	10.6	10.6	10.4	10.0	9.7
159°	9.1	9.8	10.4	10.7	9.6	9.6	9.7	9.6	9.4	9.1	8.8
160°	8.2	8.9	9.4	9.7	8.6	8.7	8.7	8.7	8.5	8.2	7.8
161°	7.3	8.0	8.5	8.8	7.7	7.8	7.8	7.8	7.6	7.3	7.0
162°	6.5	7.1	7.6	7.9	6.8	6.9	6.9	6.9	6.7	6.4	6.2
163°	5.7	6.3	6.7	7.0	6.0	6.1	6.1	6.1	5.9	5.6	5.4
164°	4.9	5.4	5.9	6.1	5.2	5.3	5.3	5.3	5.2	4.9	4.6
165°	4.2	4.7	5.1	5.3	4.5	4.5	4.6	4.5	4.4	4.1	3.9
166°	3.5	3.9	4.3	4.5	3.7	3.8	3.8	3.8	3.7	3.4	3.2
167°	2.9	3.2	3.6	3.8	3.1	3.1	3.1	3.1	3.0	2.8	2.5
168°	2.4	2.6	2.9	3.1	2.5	2.5	2.5	2.5	2.4	2.2	2.0
169°	1.9	2.1	2.4	2.5	1.9	1.9	2.0	1.9	1.8	1.7	1.5
170°	1.4	1.6	1.9	2.0	1.4	1.4	1.5	1.4	1.3	1.2	1.0
171°	1.0	1.2	1.3	1.5	1.0	1.0	1.0	1.0	0.9	0.8	0.7
172°	0.7	0.8	0.9	1.1	0.7	0.7	0.7	0.7	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	0.2	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: P832487
CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-935

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: P832487

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-935

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	345.9	345.9	345.9	345.9	345.9	345.9
1°	345.7	345.8	345.8	345.8	346.0	345.9
2°	345.6	345.5	345.7	345.7	345.9	345.9
3°	345.3	345.3	345.5	345.5	345.6	345.7
4°	345.2	345.0	345.3	345.2	345.6	345.7
5°	344.9	344.8	345.1	345.0	345.4	345.5
6°	344.5	344.5	344.9	344.8	345.1	345.2
7°	344.3	344.2	344.6	344.4	344.8	345.0
8°	343.8	343.9	344.2	344.1	344.5	344.7
9°	343.3	343.6	343.8	343.7	344.0	344.4
10°	342.9	343.1	343.3	343.2	343.6	343.9
11°	342.3	342.5	342.7	342.5	343.0	343.6
12°	341.7	341.9	342.1	341.9	342.4	343.1
13°	341.0	341.2	341.5	341.2	341.7	342.5
14°	340.2	340.4	340.7	340.5	340.9	341.9
15°	339.3	339.6	339.8	339.5	340.2	341.2
16°	338.2	338.6	338.8	338.5	339.2	340.2
17°	337.2	337.6	337.5	337.4	338.2	339.3
18°	336.0	336.4	336.4	336.3	337.1	338.3
19°	334.8	335.2	334.9	335.0	335.9	337.1
20°	333.5	333.9	333.7	333.7	334.7	335.9
21°	332.0	332.4	332.3	332.1	333.3	334.5
22°	330.3	330.8	330.9	330.6	331.7	333.0
23°	328.8	329.3	329.1	329.0	330.1	331.5
24°	327.1	327.6	327.5	327.2	328.4	329.8
25°	325.2	326.0	325.7	325.4	326.7	328.0
26°	323.4	324.1	323.7	323.5	324.7	326.1
27°	321.3	322.1	321.7	321.4	322.8	324.3
28°	319.2	319.9	319.5	319.3	320.7	322.1
29°	316.9	317.8	317.4	317.0	318.4	320.1
30°	314.5	315.4	314.9	314.8	316.0	317.8
31°	312.2	313.1	312.6	312.3	313.6	315.4
32°	309.6	310.6	310.1	309.9	311.1	313.1
33°	307.0	307.9	307.5	307.2	308.5	310.5
34°	304.3	305.1	304.8	304.5	306.0	308.0
35°	301.6	302.5	302.1	301.6	303.1	305.2
36°	298.7	299.7	299.3	298.8	300.3	302.4
37°	295.7	296.6	296.2	295.9	297.4	299.5
38°	292.6	293.6	293.2	292.7	294.3	296.5
39°	289.4	290.4	290.0	289.5	291.2	293.4
40°	286.1	287.3	286.7	286.3	288.0	290.3
41°	282.8	283.9	283.3	282.9	284.6	286.9
42°	279.3	280.6	279.8	279.5	281.2	283.6
43°	275.7	277.1	276.2	276.0	277.7	280.2
44°	272.2	273.6	272.7	272.3	274.1	276.7

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



TEST NUMBER: P832487

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-935

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	268.4	270.0	269.0	268.7	270.4	273.0
46°	264.6	266.2	265.1	264.9	266.6	269.3
47°	260.8	262.6	261.2	261.0	262.8	265.5
48°	257.0	258.6	257.3	257.1	258.7	261.6
49°	253.0	254.7	253.3	253.1	254.8	257.6
50°	248.8	250.9	249.3	249.0	250.7	253.6
51°	244.6	246.6	245.1	244.9	246.5	249.5
52°	240.4	242.4	240.8	240.6	242.3	245.3
53°	235.9	238.2	236.6	236.3	238.1	241.2
54°	231.6	233.8	232.3	231.9	233.7	236.8
55°	227.1	229.4	227.9	227.5	229.3	232.4
56°	222.5	225.0	223.4	223.1	224.9	227.9
57°	218.0	220.4	218.8	218.5	220.4	223.5
58°	213.4	215.8	214.2	213.9	215.8	219.0
59°	208.8	211.2	209.5	209.3	211.2	214.3
60°	204.1	206.7	204.9	204.6	206.6	209.7
61°	199.5	201.9	200.1	199.9	201.9	205.0
62°	194.7	197.2	195.4	195.2	197.1	200.3
63°	190.0	192.5	190.8	190.4	192.3	195.6
64°	185.3	187.8	186.0	185.6	187.6	190.8
65°	180.5	183.0	181.3	180.9	182.8	186.0
66°	175.8	178.3	176.5	176.1	178.0	181.2
67°	171.0	173.5	171.7	171.2	173.1	176.4
68°	166.3	168.7	167.1	166.5	168.3	171.6
69°	161.5	163.9	162.2	161.7	163.5	166.6
70°	156.9	159.3	157.4	156.9	158.7	161.8
71°	152.2	154.6	152.6	152.1	154.0	157.1
72°	147.6	150.0	147.9	147.4	149.2	152.4
73°	143.1	145.4	143.3	142.7	144.5	147.6
74°	138.5	140.8	138.6	138.1	139.8	142.9
75°	134.1	136.3	134.2	133.5	135.2	138.3
76°	129.7	131.9	129.7	129.0	130.7	133.7
77°	125.5	127.5	125.3	124.5	126.2	129.2
78°	121.4	123.3	121.0	120.2	121.8	124.8
79°	117.3	119.1	116.9	116.0	117.5	120.4
80°	113.5	115.1	112.8	111.9	113.3	116.2
81°	109.8	111.3	109.0	107.9	109.3	112.2
82°	106.3	107.6	105.2	104.2	105.4	108.3
83°	102.9	104.1	101.7	100.5	101.7	104.4
84°	99.8	100.8	98.4	97.2	98.2	100.9
85°	96.9	97.7	95.2	93.9	94.9	97.5
86°	94.3	94.9	92.4	91.0	91.9	94.4
87°	92.1	92.4	89.9	88.4	89.2	91.5
88°	90.1	90.1	87.6	86.1	86.7	88.9
89°	88.2	88.2	85.6	84.1	84.6	86.6

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



TEST NUMBER: P832487

CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-935

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	86.5	86.3	83.8	82.2	82.6	84.6
91°	84.8	84.6	82.0	80.4	80.8	82.7
92°	83.2	82.9	80.4	78.7	79.0	80.9
93°	81.6	81.3	78.8	77.1	77.4	79.1
94°	80.1	79.8	77.3	75.6	75.8	77.5
95°	78.6	78.3	75.8	74.1	74.2	75.8
96°	77.3	76.9	74.4	72.7	72.8	74.3
97°	75.9	75.5	73.1	71.3	71.4	72.8
98°	74.6	74.2	71.8	70.0	70.0	71.5
99°	73.2	72.9	70.5	68.8	68.7	70.1
100°	72.0	71.6	69.3	67.6	67.5	68.8
101°	70.8	70.5	68.1	66.4	66.3	67.6
102°	69.7	69.2	67.0	65.3	65.2	66.4
103°	68.5	68.1	65.8	64.2	64.1	65.2
104°	67.4	67.0	64.8	63.1	63.0	64.1
105°	66.3	65.9	63.7	62.1	61.9	63.0
106°	65.2	64.9	62.7	61.0	60.9	61.9
107°	64.2	63.8	61.7	60.1	59.9	60.9
108°	63.1	62.9	60.7	59.1	58.9	59.9
109°	62.1	61.8	59.7	58.1	57.9	58.9
110°	61.1	60.8	58.7	57.1	56.9	57.9
111°	60.1	59.9	57.8	56.2	56.0	56.9
112°	59.1	58.9	56.9	55.3	55.0	56.0
113°	58.2	57.9	55.9	54.4	54.1	55.0
114°	57.3	56.9	54.9	53.4	53.1	54.1
115°	56.4	55.9	54.0	52.5	52.2	53.1
116°	55.4	55.0	53.1	51.5	51.3	52.2
117°	54.3	54.0	52.1	50.6	50.4	51.2
118°	53.3	53.0	51.1	49.7	49.4	50.3
119°	52.3	52.0	50.2	48.7	48.5	49.3
120°	51.2	51.0	49.2	47.8	47.5	48.4
121°	50.2	49.9	48.2	46.8	46.6	47.4
122°	49.1	48.9	47.2	45.8	45.6	46.4
123°	48.0	47.9	46.2	44.8	44.6	45.4
124°	46.9	46.8	45.2	43.9	43.7	44.5
125°	45.9	45.8	44.2	42.9	42.7	43.5
126°	44.7	44.7	43.1	41.9	41.7	42.4
127°	43.6	43.7	42.1	40.9	40.7	41.5
128°	42.5	42.6	41.1	39.9	39.7	40.4
129°	41.4	41.5	40.1	38.8	38.7	39.4
130°	40.3	40.5	39.0	37.8	37.7	38.4
131°	39.2	39.4	38.0	36.8	36.6	37.4
132°	38.1	38.3	36.9	35.8	35.7	36.3
133°	37.0	37.2	35.9	34.8	34.6	35.3
134°	35.9	36.1	34.8	33.7	33.6	34.3



TEST NUMBER: P832487
 CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-935

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
135°	34.7	35.1	33.8	32.7	32.6	33.2
136°	33.6	33.9	32.7	31.7	31.5	32.2
137°	32.4	32.8	31.6	30.6	30.5	31.1
138°	31.3	31.7	30.5	29.6	29.5	30.1
139°	30.2	30.6	29.5	28.5	28.4	29.1
140°	29.0	29.5	28.4	27.5	27.4	28.0
141°	27.9	28.4	27.3	26.4	26.4	27.0
142°	26.7	27.3	26.3	25.4	25.4	26.0
143°	25.6	26.2	25.2	24.4	24.4	25.0
144°	24.5	25.2	24.2	23.4	23.4	24.0
145°	23.4	24.1	23.2	22.4	22.4	22.9
146°	22.2	23.0	22.1	21.4	21.3	21.9
147°	21.1	21.9	21.1	20.3	20.3	20.9
148°	20.0	20.8	20.0	19.3	19.3	19.8
149°	18.9	19.8	18.9	18.3	18.2	18.8
150°	17.8	18.7	17.9	17.3	17.3	17.8
151°	16.7	17.6	16.9	16.2	16.2	16.8
152°	15.6	16.5	15.8	15.2	15.2	15.8
153°	14.6	15.5	14.8	14.3	14.3	14.8
154°	13.5	14.4	13.8	13.3	13.3	13.8
155°	12.5	13.4	12.8	12.3	12.3	12.8
156°	11.5	12.4	11.8	11.4	11.4	11.9
157°	10.5	11.4	10.8	10.4	10.5	10.9
158°	9.5	10.4	9.9	9.5	9.6	10.0
159°	8.6	9.4	9.0	8.6	8.7	9.1
160°	7.6	8.5	8.1	7.7	7.8	8.2
161°	6.8	7.6	7.2	6.9	7.0	7.3
162°	6.0	6.7	6.3	6.1	6.1	6.5
163°	5.2	5.8	5.5	5.3	5.3	5.7
164°	4.4	5.0	4.7	4.5	4.6	4.9
165°	3.7	4.2	4.0	3.8	3.9	4.2
166°	3.0	3.5	3.3	3.1	3.2	3.5
167°	2.4	2.8	2.6	2.5	2.6	2.9
168°	1.8	2.3	2.1	2.0	2.1	2.4
169°	1.3	1.8	1.6	1.6	1.6	1.9
170°	0.9	1.2	1.2	1.1	1.2	1.4
171°	0.6	0.8	0.8	0.8	0.8	1.0
172°	0.3	0.5	0.5	0.5	0.6	0.7
173°	0.2	0.3	0.3	0.3	0.3	0.4
174°	0.1	0.2	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	0.1	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: P832487
CATALOG NUMBER: 7ORB15FS-1PK-ED-CA-935

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: SP1-2405-083-3

Test Date: 05/22/2024

Luminaire Tested: 7ORB15FS-1PK-ED-CA-3500K

Data in this report applies to families of products 7ORB15FS-1PK-ED-CA-3500K.

Test Information

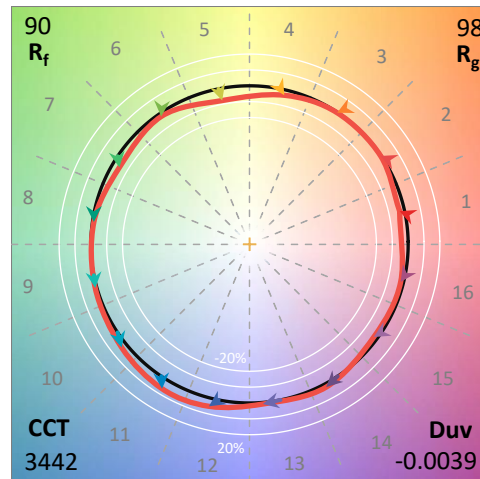
Test Method: LM-79-2019
 Report Number: SP1-2405-083-3
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 05/22/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: HALO
 Catalog Number: **7ORB15FS-1PK-ED-CA-3500K**
 Description: Halo Spin Light 3500K

Spectral Parameters

CCT (K): 3442
 CIE u': 0.2389
 CIE v': 0.5072
 Duv: -0.0039
 CIE x: 0.4043
 CIE y: 0.3815
 CIE z: 0.2141
 Peak Wavelength (nm): 632
 Dominant Wavelength (nm): 582
 Purity: 36.2

CRI (Ra):	94.9		
R1:	96.8	R9:	86.8
R2:	96.1	R10:	95.0
R3:	97.7	R11:	98.7
R4:	96.8	R12:	78.7
R5:	96.2	R13:	96.6
R6:	91.4	R14:	99.2
R7:	92.1		
R8:	92.0		

Rf: 90
 Rg: 98



Test Conditions

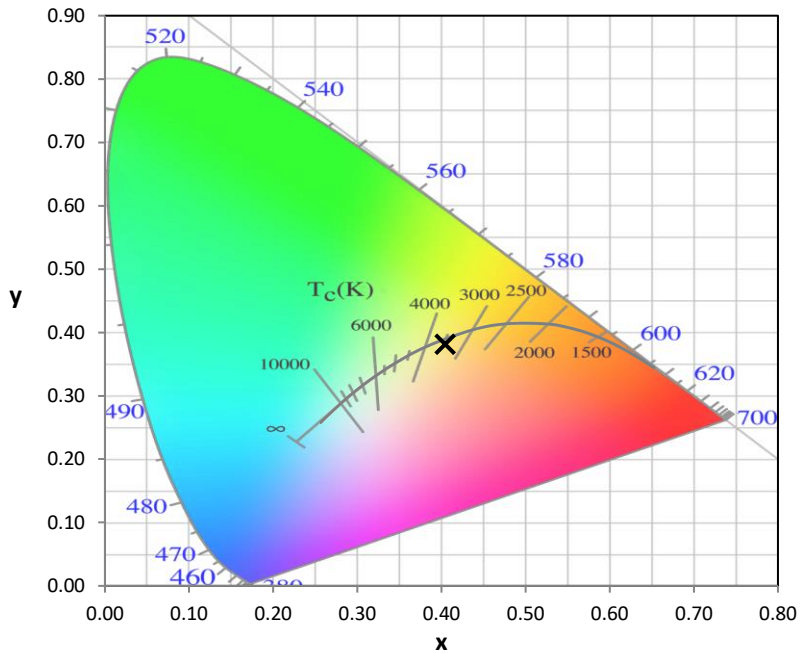
Stabilization Time: 11M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 25.0/42%
 Sphere Temperature (°C): 25.2

REPORT NUMBER: SP1-2405-083-3

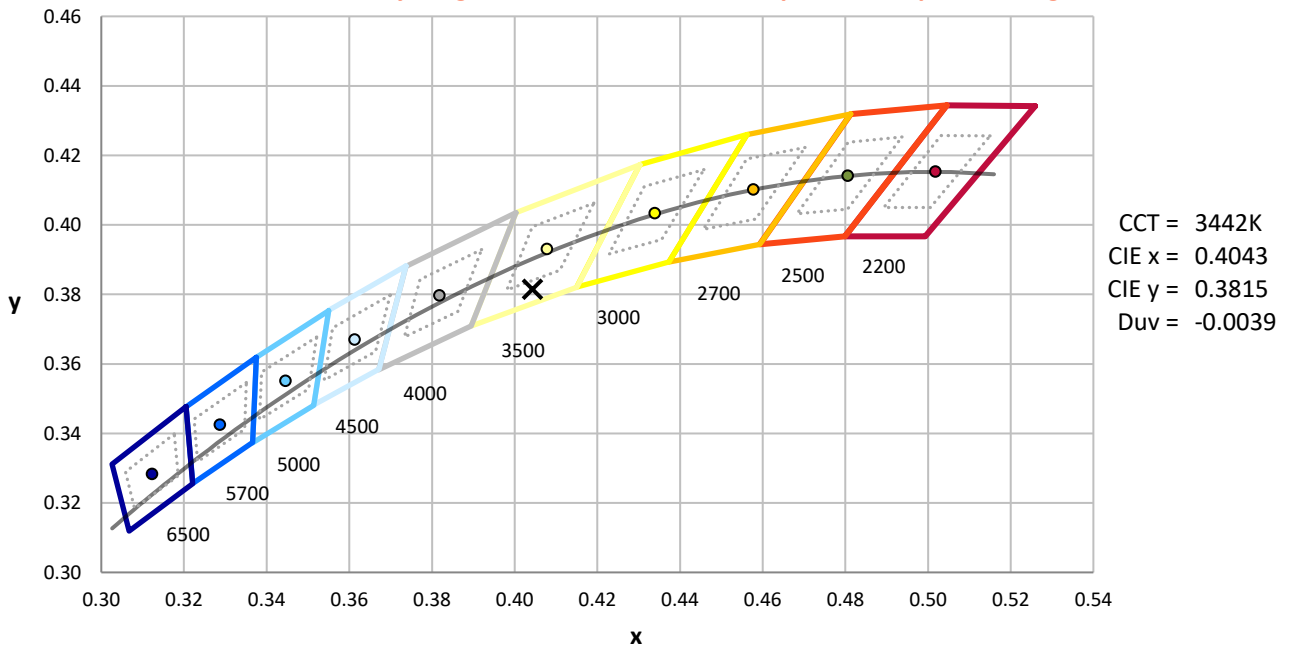
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	76INCH SPHERE IN0058	2/12/2024	8/12/2024
Power Meter	XITRON 2801 IN0071	10/23/2023	10/23/2024
AC Power Source	CHROMA 61603 IN0063	10/24/2023	10/24/2024
DC Power Source	AGILENT E3634A IN0208	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: SP1-2405-083-3

CIE 1931 Chromaticity Diagram



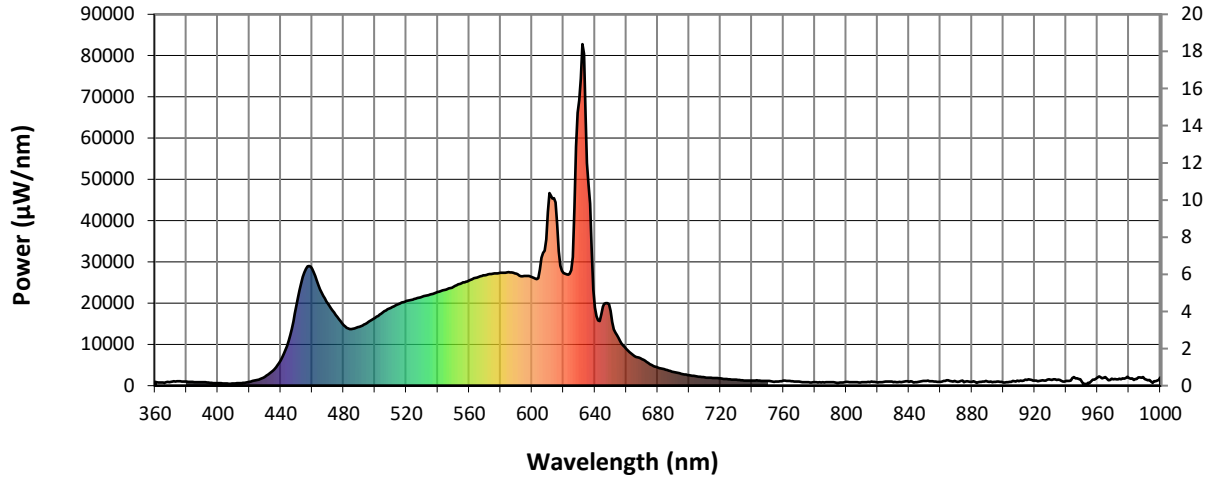
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3500K 7-step quadrangle

REPORT NUMBER: SP1-2405-083-3

Photopic Flux vs. Wavelength

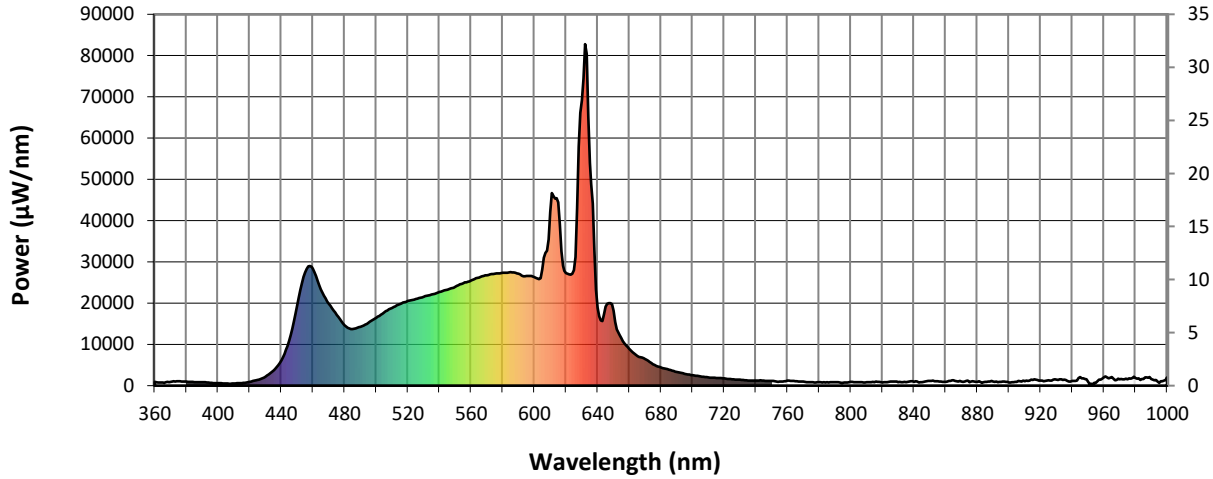


#####

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	933	NR	490	14272	NR	620	27280	NR	750	1122	NR	880	907	NR
365	733	NR	495	15189	NR	625	27963	NR	755	956	NR	885	936	NR
370	920	NR	500	16443	NR	630	69167	NR	760	1189	NR	890	960	NR
375	1047	NR	505	17753	NR	635	53941	NR	765	1095	NR	895	932	NR
380	975	NR	510	18857	NR	640	18913	NR	770	981	NR	900	757	NR
385	817	NR	515	19786	NR	645	19103	NR	775	837	NR	905	886	NR
390	863	NR	520	20550	NR	650	18101	NR	780	805	NR	910	1081	NR
395	719	NR	525	20968	NR	655	11541	NR	785	805	NR	915	1402	NR
400	593	NR	530	21546	NR	660	8901	NR	790	802	NR	920	1257	NR
405	509	NR	535	22082	NR	665	7190	NR	795	688	NR	925	1298	NR
410	513	NR	540	22730	NR	670	6457	NR	800	915	NR	930	1435	NR
415	621	NR	545	23280	NR	675	5214	NR	805	806	NR	935	1465	NR
420	906	NR	550	23926	NR	680	4384	NR	810	844	NR	940	1164	NR
425	1381	NR	555	24798	NR	685	3893	NR	815	865	NR	945	2114	NR
430	2187	NR	560	25480	NR	690	3320	NR	820	765	NR	950	926	NR
435	3640	NR	565	26205	NR	695	2876	NR	825	986	NR	955	658	NR
440	6129	NR	570	26738	NR	700	2514	NR	830	847	NR	960	1975	NR
445	10820	NR	575	27093	NR	705	2256	NR	835	830	NR	965	2088	NR
450	19377	NR	580	27331	NR	710	2017	NR	840	946	NR	970	1500	NR
455	27434	NR	585	27541	NR	715	1876	NR	845	810	NR	975	1545	NR
460	28398	NR	590	27131	NR	720	1745	NR	850	1111	NR	980	1858	NR
465	23366	NR	595	26567	NR	725	1530	NR	855	1068	NR	985	1628	NR
470	19838	NR	600	26314	NR	730	1421	NR	860	952	NR	990	1643	NR
475	17157	NR	605	28162	NR	735	1252	NR	865	1272	NR	995	690	NR
480	14672	NR	610	42126	NR	740	1246	NR	870	1000	NR	1000	2034	NR
485	13739	NR	615	44453	NR	745	1207	NR	875	847	NR			

REPORT NUMBER: SP1-2405-083-3

Scotopic Flux vs. Wavelength



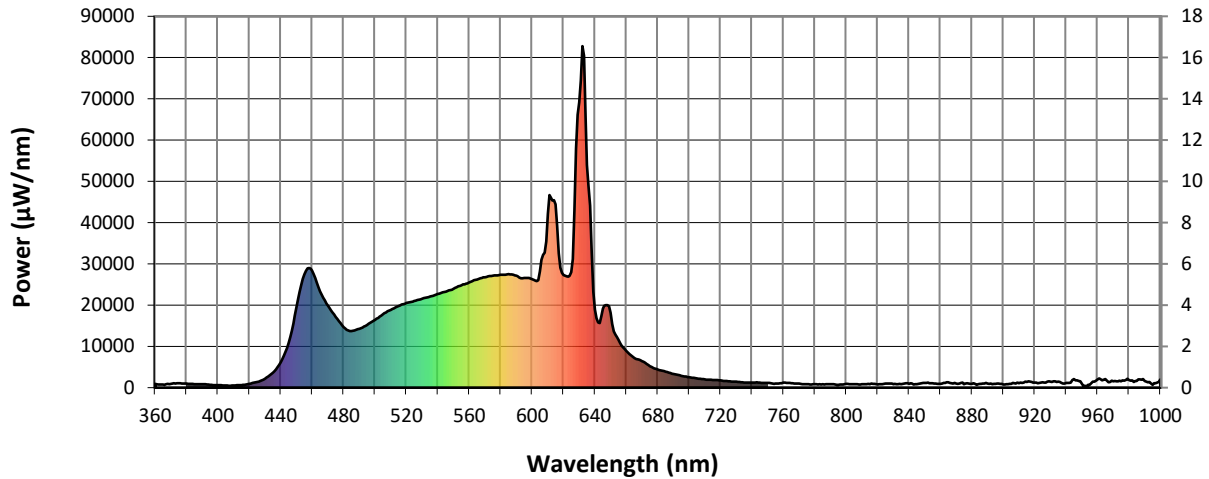
Scotopic Lumens: 3133.2

S/P: 1.7

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	933	NR	490	14272	NR	620	27280	NR	750	1122	NR	880	907	NR
365	733	NR	495	15189	NR	625	27963	NR	755	956	NR	885	936	NR
370	920	NR	500	16443	NR	630	69167	NR	760	1189	NR	890	960	NR
375	1047	NR	505	17753	NR	635	53941	NR	765	1095	NR	895	932	NR
380	975	NR	510	18857	NR	640	18913	NR	770	981	NR	900	757	NR
385	817	NR	515	19786	NR	645	19103	NR	775	837	NR	905	886	NR
390	863	NR	520	20550	NR	650	18101	NR	780	805	NR	910	1081	NR
395	719	NR	525	20968	NR	655	11541	NR	785	805	NR	915	1402	NR
400	593	NR	530	21546	NR	660	8901	NR	790	802	NR	920	1257	NR
405	509	NR	535	22082	NR	665	7190	NR	795	688	NR	925	1298	NR
410	513	NR	540	22730	NR	670	6457	NR	800	915	NR	930	1435	NR
415	621	NR	545	23280	NR	675	5214	NR	805	806	NR	935	1465	NR
420	906	NR	550	23926	NR	680	4384	NR	810	844	NR	940	1164	NR
425	1381	NR	555	24798	NR	685	3893	NR	815	865	NR	945	2114	NR
430	2187	NR	560	25480	NR	690	3320	NR	820	765	NR	950	926	NR
435	3640	NR	565	26205	NR	695	2876	NR	825	986	NR	955	658	NR
440	6129	NR	570	26738	NR	700	2514	NR	830	847	NR	960	1975	NR
445	10820	NR	575	27093	NR	705	2256	NR	835	830	NR	965	2088	NR
450	19377	NR	580	27331	NR	710	2017	NR	840	946	NR	970	1500	NR
455	27434	NR	585	27541	NR	715	1876	NR	845	810	NR	975	1545	NR
460	28398	NR	590	27131	NR	720	1745	NR	850	1111	NR	980	1858	NR
465	23366	NR	595	26567	NR	725	1530	NR	855	1068	NR	985	1628	NR
470	19838	NR	600	26314	NR	730	1421	NR	860	952	NR	990	1643	NR
475	17157	NR	605	28162	NR	735	1252	NR	865	1272	NR	995	690	NR
480	14672	NR	610	42126	NR	740	1246	NR	870	1000	NR	1000	2034	NR
485	13739	NR	615	44453	NR	745	1207	NR	875	847	NR			

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Melanopic Flux vs. Wavelength



Melanopic Lumens: 1298.1 M/P: 0.71

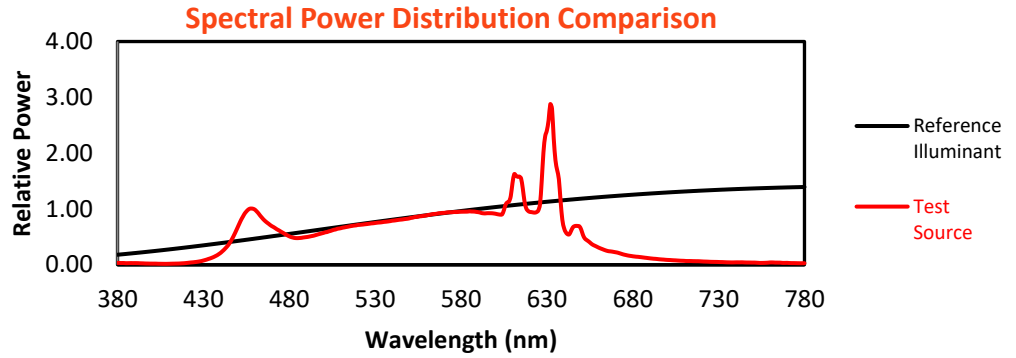
λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)	λ (nm)	Power (µW/nm)	Lumens (φ/nm)
360	933	NR	490	14272	NR	620	27280	NR	750	1122	NR	880	907	NR
365	733	NR	495	15189	NR	625	27963	NR	755	956	NR	885	936	NR
370	920	NR	500	16443	NR	630	69167	NR	760	1189	NR	890	960	NR
375	1047	NR	505	17753	NR	635	53941	NR	765	1095	NR	895	932	NR
380	975	NR	510	18857	NR	640	18913	NR	770	981	NR	900	757	NR
385	817	NR	515	19786	NR	645	19103	NR	775	837	NR	905	886	NR
390	863	NR	520	20550	NR	650	18101	NR	780	805	NR	910	1081	NR
395	719	NR	525	20968	NR	655	11541	NR	785	805	NR	915	1402	NR
400	593	NR	530	21546	NR	660	8901	NR	790	802	NR	920	1257	NR
405	509	NR	535	22082	NR	665	7190	NR	795	688	NR	925	1298	NR
410	513	NR	540	22730	NR	670	6457	NR	800	915	NR	930	1435	NR
415	621	NR	545	23280	NR	675	5214	NR	805	806	NR	935	1465	NR
420	906	NR	550	23926	NR	680	4384	NR	810	844	NR	940	1164	NR
425	1381	NR	555	24798	NR	685	3893	NR	815	865	NR	945	2114	NR
430	2187	NR	560	25480	NR	690	3320	NR	820	765	NR	950	926	NR
435	3640	NR	565	26205	NR	695	2876	NR	825	986	NR	955	658	NR
440	6129	NR	570	26738	NR	700	2514	NR	830	847	NR	960	1975	NR
445	10820	NR	575	27093	NR	705	2256	NR	835	830	NR	965	2088	NR
450	19377	NR	580	27331	NR	710	2017	NR	840	946	NR	970	1500	NR
455	27434	NR	585	27541	NR	715	1876	NR	845	810	NR	975	1545	NR
460	28398	NR	590	27131	NR	720	1745	NR	850	1111	NR	980	1858	NR
465	23366	NR	595	26567	NR	725	1530	NR	855	1068	NR	985	1628	NR
470	19838	NR	600	26314	NR	730	1421	NR	860	952	NR	990	1643	NR
475	17157	NR	605	28162	NR	735	1252	NR	865	1272	NR	995	690	NR
480	14672	NR	610	42126	NR	740	1246	NR	870	1000	NR	1000	2034	NR
485	13739	NR	615	44453	NR	745	1207	NR	875	847	NR			

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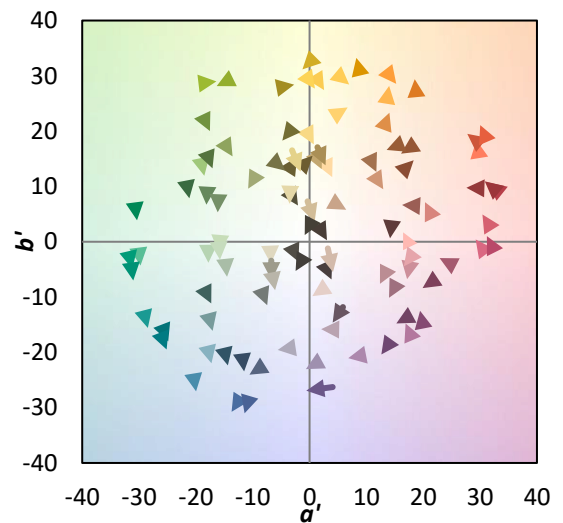
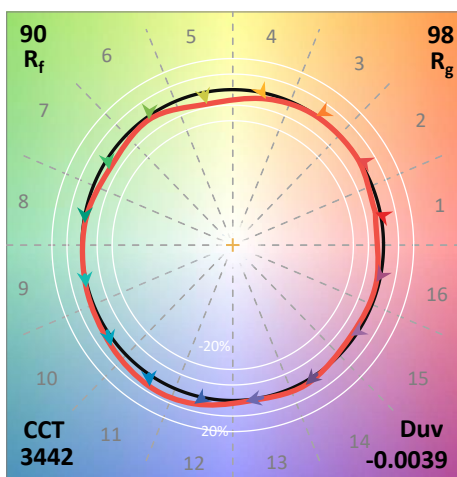
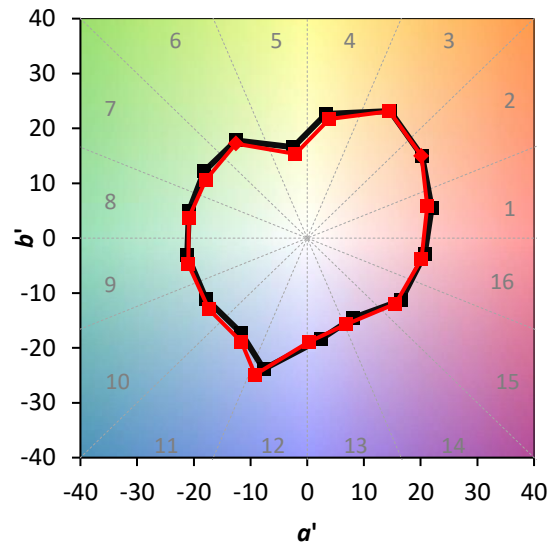
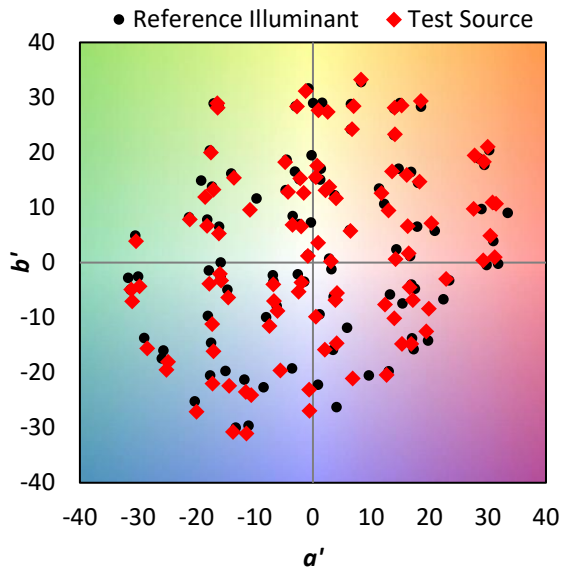
TM-30-18

Summary

$R_f = 90$
 $R_g = 98$
 CIE $R_a = 94.9$
 $R_9 = 86.8$



Color Vector Graphics

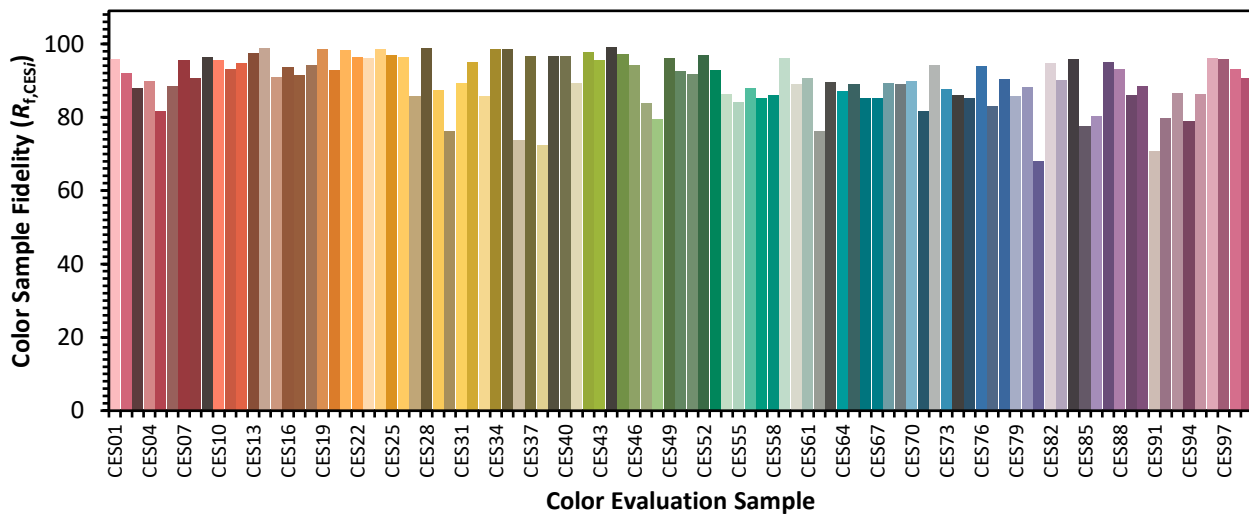


REPORT NUMBER: SP1-2405-083-3

TM-30-18

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

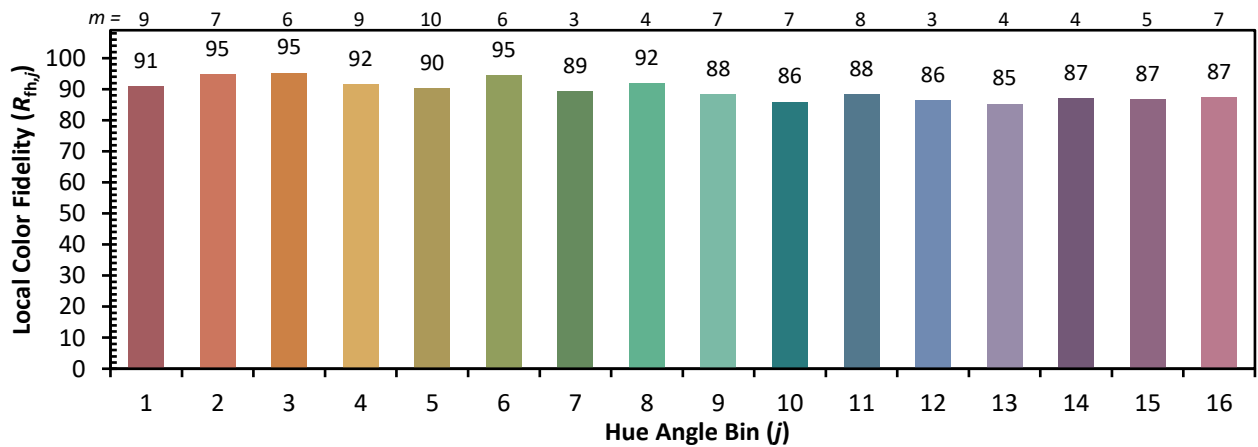
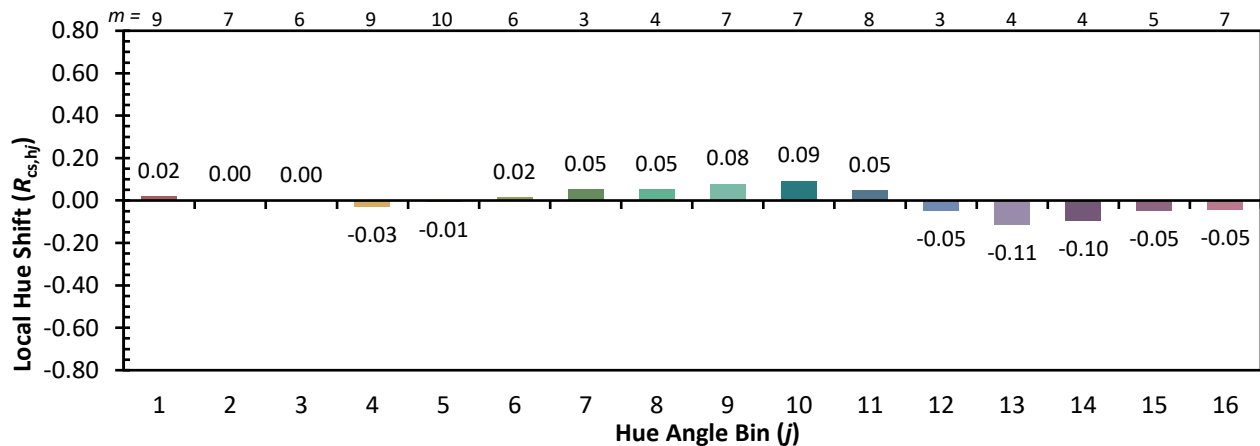
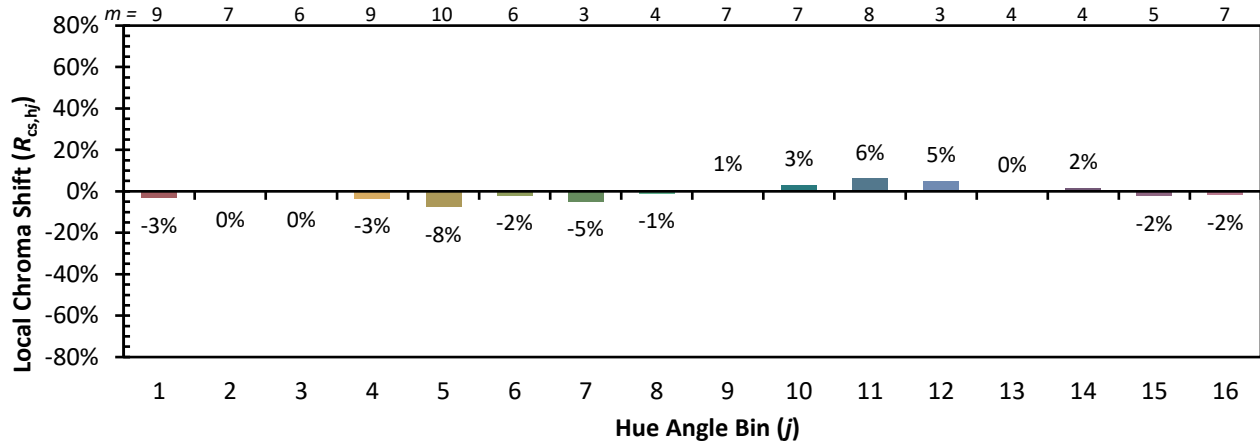
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CES04 = 70	CES29 = 87	CES54 = 86	CES79 = 86
CES05 = 50	CES30 = 76	CES55 = 84	CES80 = 88
CES06 = 51	CES31 = 89	CES56 = 88	CES81 = 68
CES07 = 43	CES32 = 95	CES57 = 85	CES82 = 95
CES08 = 42	CES33 = 86	CES58 = 86	CES83 = 90
CES09 = 29	CES34 = 98	CES59 = 96	CES84 = 96
CES10 = 75	CES35 = 99	CES60 = 89	CES85 = 78
CES11 = 58	CES36 = 74	CES61 = 91	CES86 = 80
CES12 = 64	CES37 = 97	CES62 = 76	CES87 = 95
CES13 = 44	CES38 = 72	CES63 = 89	CES88 = 93
CES14 = 74	CES39 = 97	CES64 = 87	CES89 = 86
CES15 = 72	CES40 = 97	CES65 = 89	CES90 = 88
CES16 = 48	CES41 = 89	CES66 = 85	CES91 = 71
CES17 = 49	CES42 = 98	CES67 = 85	CES92 = 80
CES18 = 56	CES43 = 96	CES68 = 89	CES93 = 86
CES19 = 71	CES44 = 99	CES69 = 89	CES94 = 79
CES20 = 67	CES45 = 97	CES70 = 90	CES95 = 86
CES21 = 86	CES46 = 94	CES71 = 82	CES96 = 96
CES22 = 78	CES47 = 84	CES72 = 94	CES97 = 96
CES23 = 91	CES48 = 79	CES73 = 88	CES98 = 93
CES24 = 90	CES49 = 96	CES74 = 86	CES99 = 91
CES25 = 71	CES50 = 93	CES75 = 85	



REPORT NUMBER: SP1-2405-083-3

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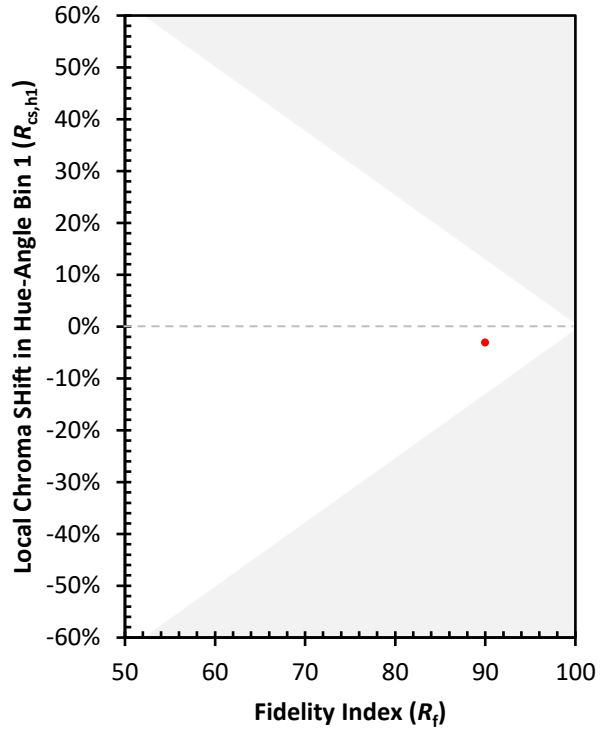
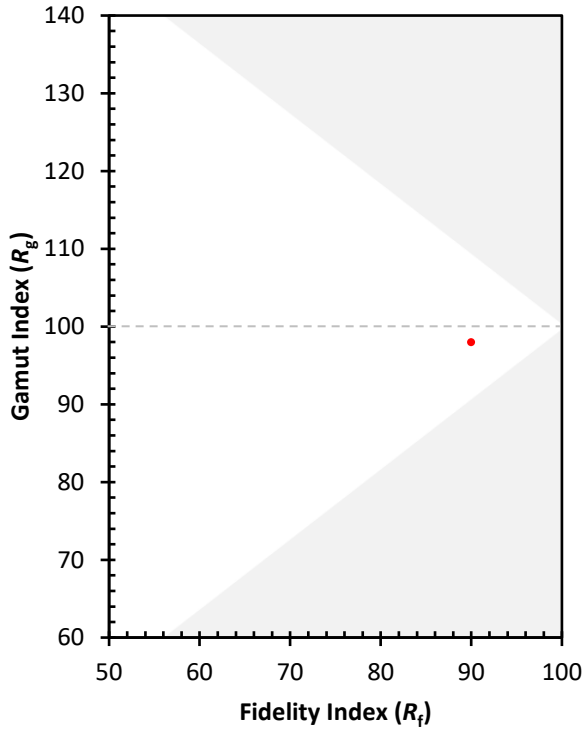
Color Rendition by Hue-Angle Bin



REPORT NUMBER: SP1-2405-083-3

TM-30-18

Measure Comparisons



(END OF REPORT)