

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: P855597

Luminaire Tested: **HLS9129FS1EWH-5000K**

Issue Date: 7/16/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-08
 Report Number: P855597
 Test Lab:
 Issue Date: 7/16/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
 Product Line: HALO
 Catalog Number: HLS9129FS1EWH-5000K
 Description: 9IN 1200LM, 90CRI, DIMMING TO 10%, DAMP LOCATION
 Light Source: SELECTABLE CCT 90CRI / 5000K CCT
 Ballast/Driver: -

Summary

Lumens per Lamp: 1287.7 (1 lamp)
 Luminaire Lumens: 1285.0 lumens
 Efficiency: 99.8%
 Efficacy: 78.4 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Circular (Dia: 0.75' x H: 0')
 CIE Type: Direct

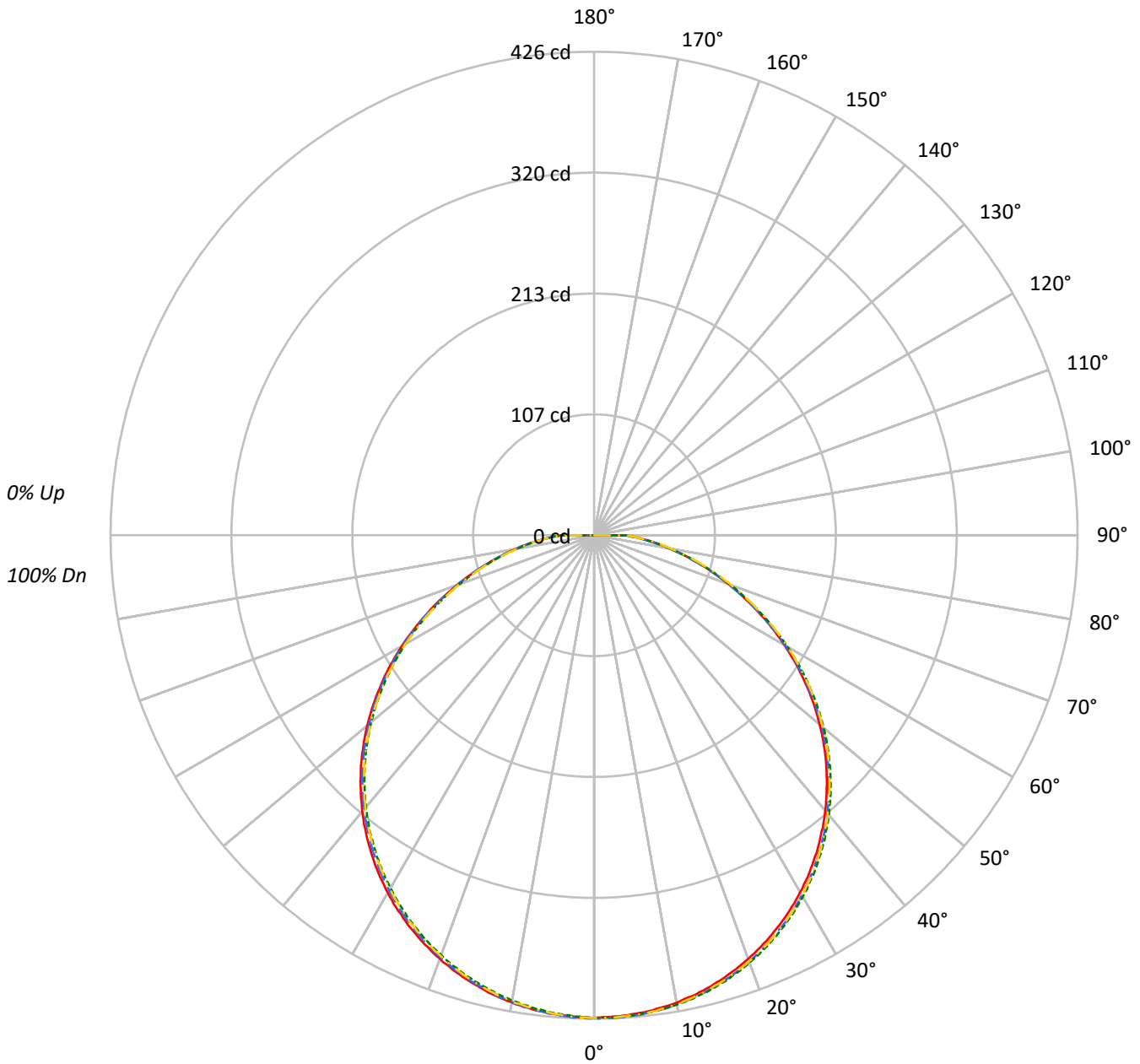
Input Watts (W): 16.4
 Input Voltage (V): NR
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 25 FT



Meas		Calibration Due Date	
Instrument	Identificatio		
Photometer	GONIO 1 11111111	4/22/2021	10/22/2021
Power Meter	XITRON 2801 IN0197	12/1/2020	12/1/2021
AC Power Source	CHROMA 61505 IN0196	12/1/2020	12/1/2021
DC Power Supply	AGILENT E3634A IN0198	11/30/2020	11/30/2021
Room Thermometer	ONSET IN0143	12/1/2020	12/1/2021

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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				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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	107	102	98	93	105	100	96	92	96	92	89	92	89	86	88	86	84	81				81
2	97	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67				67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56				56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48				48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41				41
6	69	55	46	39	67	54	45	39	52	45	39	51	44	38	49	43	38	36				36
7	64	50	41	35	62	49	41	34	47	40	34	46	39	34	45	38	34	32				32
8	59	45	37	31	58	45	36	31	43	36	31	42	35	30	41	35	30	28				28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25				25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23				23

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	10362	10362	10362	10362
5°	10350	10370	10348	10333
10°	10349	10391	10341	10302
15°	10327	10397	10327	10264
20°	10299	10395	10293	10208
25°	10261	10372	10269	10162
30°	10215	10348	10229	10097
35°	10163	10297	10175	10030
40°	10076	10238	10108	9946
45°	9968	10147	10013	9837
50°	9832	10018	9889	9711
55°	9655	9829	9732	9549
60°	9439	9604	9531	9366
65°	9190	9340	9328	9155
70°	8997	9111	9168	9004
75°	9000	9075	9216	9056
80°	9597	9597	9892	9737
85°	12748	12524	13195	13027

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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	40.3	3.1	3.1
10°-20°	115.6	9.0	9.0
20°-30°	176.1	13.7	13.7
30°-40°	213.8	16.6	16.6
40°-50°	223.6	17.4	17.4
50°-60°	203.9	15.9	15.8
60°-70°	159.0	12.4	12.4
70°-80°	102.5	8.0	8.0
80°-90°	50.3	3.9	3.9
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	331.9	25.8	25.8
0°-40°	545.8	42.5	42.4
0°-60°	973.2	75.7	75.6
0°-90°	1285.0	100.0	99.8
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	1285.0	100.0	99.8

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	425	425	425	425	425	
5°	423	424	423	422	423	40
15°	409	412	409	407	409	116
25°	382	386	382	378	382	176
35°	342	346	342	337	342	214
45°	289	294	291	286	289	223
55°	227	231	229	225	227	203
65°	159	162	162	159	159	158
75°	96	96	98	96	96	101
85°	46	45	47	47	46	50
90°	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°	425.3	425.3	425.3	425.3	425.3	425.3	425.3	425.3	425.3	425.3	425.3
0.5°	425.1	425.5	425.8	425.3	425.2	425.2	425.5	425.3	425.2	425.4	425.8
1°	424.8	425.1	425.9	425.5	425.3	425.2	425.2	425.3	424.8	425.1	425.7
1.5°	424.8	425.5	425.7	425.6	425.1	425.1	425.4	425.2	424.8	425.3	425.3
2°	424.6	425.0	425.6	425.5	425.1	425.5	425.1	425.2	424.8	424.5	425.2
2.5°	424.4	425.0	425.7	425.1	425.3	425.1	425.3	425.1	424.3	424.7	425.3
3°	424.6	424.6	425.4	425.4	425.0	425.0	425.0	425.1	424.3	424.6	424.7
3.5°	424.1	424.5	425.5	425.0	424.5	424.8	424.8	424.8	424.1	424.1	424.4
4°	424.0	424.3	425.2	425.0	424.8	424.8	424.6	424.7	424.1	423.9	424.2
4.5°	423.4	424.2	424.5	424.6	424.7	424.4	424.4	424.0	423.6	423.6	423.5
5°	423.2	423.6	424.5	424.4	424.0	424.4	424.0	424.0	423.1	423.2	423.3
5.5°	422.8	423.6	424.4	423.7	424.0	423.8	424.0	423.5	423.0	422.6	423.2
6°	422.6	422.8	423.8	423.6	423.6	423.4	423.3	423.3	422.2	422.6	422.5
6.5°	422.2	422.7	423.4	423.2	423.1	423.3	423.3	423.0	422.1	422.2	422.0
7°	421.8	422.1	423.1	423.1	423.3	423.0	422.7	422.5	421.8	421.5	421.5
7.5°	420.9	422.0	422.8	422.7	422.6	422.5	422.5	421.8	421.2	420.6	420.8
8°	420.5	421.4	422.1	422.3	421.9	422.2	421.6	421.4	420.4	420.4	420.1
8.5°	420.0	420.3	421.8	421.5	421.5	421.4	421.3	420.8	420.1	419.7	419.9
9°	419.5	420.0	421.1	421.2	421.3	420.8	420.5	420.5	419.3	419.1	418.9
9.5°	418.9	419.6	420.5	420.2	420.5	420.5	420.1	419.5	419.0	418.7	418.4
10°	418.3	418.9	419.7	420.0	420.0	419.8	419.4	419.1	418.0	417.9	417.6
10.5°	417.3	417.9	419.3	419.4	419.3	419.3	419.0	418.3	417.4	417.0	416.7
11°	416.4	417.3	418.5	418.7	418.7	418.6	418.1	417.7	416.5	416.2	415.8
11.5°	415.7	416.5	417.7	417.8	417.9	417.8	417.3	416.7	415.9	415.5	415.4
12°	415.2	415.7	417.0	417.0	417.7	417.0	416.5	416.0	414.8	414.6	414.2
12.5°	414.4	415.2	415.9	416.4	416.5	416.4	415.8	415.2	414.2	413.9	413.3
13°	413.2	414.0	415.3	415.4	415.6	415.5	414.8	414.3	413.5	412.8	412.2
13.5°	412.4	413.0	414.6	414.7	415.0	414.8	414.2	413.7	412.2	411.9	411.5
14°	411.4	412.2	413.5	413.9	414.4	413.8	413.1	412.8	411.3	411.0	410.1
14.5°	410.5	411.4	412.2	412.8	413.0	412.8	412.1	411.4	410.2	409.7	409.2
15°	409.4	410.2	411.7	411.8	412.2	411.7	410.9	410.5	409.4	408.6	408.3
15.5°	408.3	409.3	410.4	411.2	411.1	410.9	410.3	409.4	408.3	408.0	407.3
16°	407.4	407.9	409.4	409.9	410.1	410.0	409.2	408.6	407.2	406.8	405.8
16.5°	406.2	407.2	408.4	408.6	409.4	408.9	408.2	407.4	406.1	405.3	404.7
17°	404.8	405.8	407.4	407.9	408.3	407.8	407.0	406.6	404.8	404.2	403.6
17.5°	403.7	404.9	406.0	406.8	406.7	406.5	405.8	404.9	403.8	403.4	402.5
18°	402.5	403.4	405.0	405.4	405.8	405.4	404.5	403.6	402.8	401.9	401.2
18.5°	401.0	402.2	403.6	404.4	404.7	404.4	403.5	402.6	401.1	400.5	399.8
19°	399.8	401.0	402.3	403.0	403.2	403.2	402.1	401.5	399.8	399.4	398.5
19.5°	398.6	399.8	401.0	401.7	402.1	401.9	401.1	399.9	398.9	397.7	397.3
20°	397.2	398.2	400.0	400.4	400.9	400.5	399.3	398.9	397.0	396.6	395.8
20.5°	395.7	396.8	398.5	399.3	399.2	399.0	398.6	397.4	395.9	395.2	394.4
21°	394.4	395.5	397.0	397.7	398.2	397.9	396.9	395.8	394.6	393.8	392.9
21.5°	392.8	394.0	395.5	396.3	396.9	396.4	395.4	394.5	393.0	392.4	391.4
22°	391.5	392.5	394.0	395.0	395.1	394.9	393.9	393.1	391.3	390.8	389.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	389.7	391.2	392.4	393.2	393.8	393.5	392.6	391.4	390.2	389.2	388.3
23°	388.3	389.4	391.1	391.9	392.6	392.0	390.9	390.2	388.7	387.7	386.8
23.5°	386.8	388.1	389.3	390.1	390.7	390.4	389.7	388.6	386.9	386.1	385.0
24°	385.2	386.2	387.9	388.9	389.1	388.7	387.9	386.9	385.2	384.5	383.4
24.5°	383.3	384.8	386.3	387.1	387.8	387.2	386.1	384.9	383.6	382.4	381.9
25°	381.7	383.3	384.1	385.5	385.8	385.6	384.5	383.6	382.0	381.3	380.0
25.5°	380.1	381.3	382.9	383.8	384.1	384.0	383.0	381.7	380.5	379.6	378.3
26°	378.2	379.7	381.3	381.9	382.8	381.9	381.4	380.3	378.6	377.7	376.7
26.5°	376.6	378.0	379.5	380.1	380.7	380.5	379.5	378.4	377.0	375.6	374.8
27°	374.8	376.1	377.4	378.5	379.0	378.9	377.6	376.7	374.7	374.0	372.8
27.5°	372.9	374.3	376.0	376.5	377.3	376.9	376.0	374.7	373.4	372.1	371.4
28°	370.8	372.4	373.8	375.0	375.6	375.1	374.0	372.8	371.4	370.4	368.9
28.5°	369.3	370.4	372.1	372.9	373.6	373.4	372.2	370.8	369.7	368.3	367.5
29°	367.3	368.7	370.1	370.9	371.7	371.2	370.4	369.1	367.5	366.5	365.3
29.5°	365.2	366.7	368.4	369.0	369.8	369.2	368.2	367.3	365.9	364.5	363.6
30°	363.1	364.7	366.2	366.8	367.8	367.4	366.5	365.1	363.6	362.4	361.2
30.5°	361.3	362.5	364.2	365.1	365.7	365.5	364.6	363.0	361.7	360.3	359.4
31°	358.9	360.7	361.9	362.8	364.1	363.3	362.2	361.1	359.3	358.4	357.1
31.5°	357.0	358.5	359.9	360.8	361.7	361.3	360.2	359.0	357.5	356.5	355.1
32°	355.0	356.5	358.0	358.7	359.3	359.0	358.2	356.8	355.5	354.3	352.8
32.5°	352.8	354.3	355.8	356.5	357.6	357.2	356.0	354.8	353.3	352.1	351.0
33°	350.6	352.3	353.6	354.5	355.5	354.9	354.1	352.7	351.0	349.9	348.6
33.5°	348.4	349.9	351.3	352.2	353.2	352.9	351.7	350.3	349.1	347.5	346.4
34°	346.0	347.4	349.0	349.9	351.0	350.4	349.3	347.9	346.6	345.1	344.0
34.5°	343.6	345.5	346.8	347.7	348.7	348.2	347.0	345.9	344.3	343.2	342.0
35°	341.7	343.0	344.7	345.2	346.2	345.9	345.0	343.5	342.1	341.0	339.6
35.5°	339.2	341.1	342.0	343.1	344.3	343.7	342.5	341.3	339.8	338.6	337.4
36°	337.0	338.4	339.8	340.8	341.7	341.2	340.4	338.9	337.4	336.0	334.9
36.5°	334.5	336.1	337.4	338.2	339.3	339.1	337.9	336.4	335.1	333.9	332.5
37°	331.9	333.5	334.8	335.6	337.1	336.4	335.5	334.1	332.8	331.4	330.1
37.5°	329.3	331.2	332.7	333.5	334.7	334.1	333.0	331.7	330.2	328.9	327.8
38°	327.2	328.5	330.0	330.9	331.7	331.5	330.6	329.2	327.7	326.6	325.2
38.5°	324.6	326.4	327.4	328.2	329.6	329.1	328.0	326.6	325.4	323.8	322.7
39°	322.0	323.8	325.1	326.0	327.0	326.8	325.6	324.0	322.7	321.6	320.4
39.5°	319.6	320.9	322.5	323.2	324.4	324.1	323.1	321.7	320.3	318.9	317.9
40°	316.8	318.5	319.7	320.5	321.9	321.4	320.3	319.1	317.8	316.4	315.0
40.5°	314.2	315.9	317.1	317.9	319.3	319.0	317.7	316.3	314.9	313.9	312.6
41°	311.5	313.1	314.5	315.4	316.4	316.3	315.0	313.9	312.3	311.2	310.0
41.5°	309.0	310.4	311.7	312.5	314.0	313.3	312.5	311.1	310.0	308.4	307.5
42°	306.1	307.8	308.9	309.8	311.3	310.9	309.9	308.3	307.2	306.0	304.8
42.5°	303.4	305.1	306.3	307.1	308.4	308.1	307.2	305.8	304.3	303.3	302.0
43°	300.8	302.3	303.3	304.3	305.8	305.2	304.3	302.9	301.7	300.5	299.2
43.5°	297.9	299.6	300.8	301.4	303.0	302.5	301.6	300.3	299.1	297.6	296.6
44°	295.1	296.7	297.7	298.7	300.0	299.7	298.8	297.3	295.9	295.1	293.7
44.5°	292.3	293.5	295.0	295.7	297.1	296.9	295.9	294.7	293.3	292.2	291.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	289.3	291.1	292.0	292.8	294.5	293.9	293.1	291.7	290.6	289.2	288.1
45.5°	286.7	288.1	289.1	289.9	291.5	291.0	290.4	288.8	287.7	286.3	285.4
46°	283.7	285.1	286.2	287.1	288.6	288.1	287.4	285.9	284.6	283.6	282.5
46.5°	280.7	282.2	283.3	284.0	285.4	285.4	284.3	283.0	281.9	280.7	279.7
47°	277.7	279.2	280.3	280.8	282.7	282.1	281.3	280.1	278.9	277.8	276.7
47.5°	274.7	276.1	277.4	278.0	279.6	279.3	278.4	277.0	275.9	274.8	273.8
48°	271.8	273.1	274.1	275.0	276.6	276.1	275.8	274.0	273.0	271.9	270.7
48.5°	268.8	270.2	271.0	271.9	273.4	273.2	272.4	271.3	269.9	268.8	268.1
49°	265.8	267.1	268.3	268.7	270.4	269.9	269.4	268.1	266.9	265.8	264.9
49.5°	262.6	263.9	265.1	265.6	267.3	267.0	266.2	264.9	263.9	262.7	261.8
50°	259.4	260.9	261.8	262.4	264.3	263.9	263.2	261.8	260.9	259.8	258.7
50.5°	256.4	257.6	258.7	259.1	260.9	260.7	260.1	258.6	257.7	256.8	255.9
51°	253.2	254.4	255.4	256.1	257.7	257.4	257.0	255.5	254.6	253.7	252.6
51.5°	250.0	251.2	252.2	252.8	254.6	254.3	253.6	252.5	251.4	250.5	249.7
52°	247.0	248.2	249.1	249.6	251.5	251.1	250.7	249.5	248.5	247.5	246.5
52.5°	243.8	244.9	245.9	246.4	248.1	247.9	247.2	246.1	245.2	244.1	243.2
53°	240.4	241.5	242.5	242.9	244.8	244.7	244.1	242.7	242.0	241.1	240.1
53.5°	237.2	238.4	239.2	239.6	241.5	241.3	240.9	239.7	238.7	237.9	237.0
54°	234.0	235.0	235.7	236.1	238.3	237.9	237.6	236.2	235.5	234.7	233.8
54.5°	230.6	231.8	232.3	233.1	234.8	234.7	234.3	233.3	232.1	231.4	230.6
55°	227.3	228.3	229.3	229.7	231.4	231.4	231.0	229.9	229.1	228.2	227.4
55.5°	224.1	225.1	226.0	226.3	228.1	227.9	227.6	226.6	225.8	225.1	224.1
56°	220.7	221.8	222.4	222.8	224.7	224.6	224.4	223.2	222.6	221.5	220.8
56.5°	217.2	218.3	219.1	219.4	221.4	221.3	220.9	219.9	219.0	218.3	217.5
57°	214.1	215.0	215.5	216.0	218.0	217.8	217.7	216.5	216.0	215.0	214.4
57.5°	210.7	211.5	212.1	212.4	214.4	214.3	214.1	213.0	212.6	211.7	211.0
58°	207.3	208.0	208.7	209.0	211.0	211.0	210.7	209.9	209.1	208.4	207.7
58.5°	203.8	204.6	205.3	205.5	207.5	207.4	207.4	206.5	205.9	205.1	204.4
59°	200.5	201.3	201.8	202.3	204.1	204.3	203.8	203.1	202.5	201.7	201.1
59.5°	197.0	197.9	198.5	198.6	200.6	200.6	200.3	199.6	199.1	198.3	197.6
60°	193.7	194.3	194.9	195.2	197.1	197.0	197.0	196.1	195.6	195.1	194.5
60.5°	190.2	191.0	191.4	191.6	193.6	193.6	193.5	192.7	192.4	191.7	191.2
61°	186.8	187.5	187.7	188.1	190.0	190.4	190.0	189.4	188.9	188.4	187.8
61.5°	183.4	184.0	184.5	184.4	186.6	186.6	186.6	185.9	185.4	184.9	184.4
62°	180.0	180.5	180.9	181.2	183.1	183.3	183.2	182.4	182.1	181.6	181.1
62.5°	176.5	177.1	177.4	177.6	179.5	179.8	179.7	179.1	178.7	178.2	177.7
63°	173.2	173.6	173.8	174.1	176.0	176.3	176.2	175.6	175.4	174.8	174.3
63.5°	169.8	170.1	170.3	170.5	172.6	172.7	172.8	172.2	172.0	171.4	171.0
64°	166.2	166.7	166.8	167.0	169.1	169.3	169.3	168.9	168.5	168.1	167.7
64.5°	162.8	163.2	163.5	163.6	165.4	165.7	165.8	165.3	165.1	164.7	164.3
65°	159.4	159.8	159.9	160.1	162.0	162.4	162.5	162.0	161.8	161.5	161.0
65.5°	156.1	156.5	156.5	156.7	158.5	158.9	159.1	158.5	158.5	158.0	157.7
66°	152.7	153.0	153.0	153.1	155.1	155.3	155.5	155.2	155.1	154.7	154.3
66.5°	149.4	149.5	149.6	149.6	151.7	152.0	152.2	151.7	151.7	151.3	151.0
67°	145.9	146.2	146.1	146.2	148.3	148.6	148.9	148.4	148.5	148.1	147.7

TEST NUMBER: P855597
 CATALOG NUMBER: HLS9129FS1EWH-5000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	142.6	142.7	142.8	142.9	144.8	145.3	145.4	145.2	145.2	144.8	144.6
68°	139.4	139.4	139.4	139.4	141.4	141.8	142.2	141.8	141.9	141.5	141.3
68.5°	136.1	136.0	136.0	136.0	138.1	138.5	138.8	138.6	138.6	138.3	138.1
69°	132.8	132.9	132.6	132.8	134.7	135.1	135.5	135.3	135.1	135.0	134.7
69.5°	129.5	129.4	129.4	129.4	131.3	131.8	132.0	131.9	132.0	131.8	131.6
70°	126.3	126.1	126.1	126.1	127.9	128.4	129.0	128.6	128.7	128.6	128.3
70.5°	123.0	123.0	122.8	122.7	124.5	125.3	125.6	125.6	125.6	125.5	125.2
71°	119.9	119.7	119.5	119.5	121.5	122.0	122.3	122.4	122.4	122.3	122.1
71.5°	116.8	116.5	116.2	116.3	118.2	118.8	119.2	119.1	119.3	119.1	118.9
72°	113.7	113.2	113.1	113.1	115.0	115.6	116.0	116.0	116.1	116.1	115.8
72.5°	110.5	110.3	110.0	109.9	111.8	112.4	112.8	112.9	112.9	112.9	112.7
73°	107.4	107.1	106.8	106.8	108.6	109.1	109.8	109.7	109.9	109.9	109.8
73.5°	104.4	104.0	103.7	103.7	105.5	106.1	106.6	106.7	106.9	106.9	106.6
74°	101.4	100.9	100.7	100.6	102.4	103.1	103.5	103.7	103.9	103.9	103.7
74.5°	98.5	97.9	97.6	97.5	99.4	100.0	100.6	100.7	100.9	100.9	100.8
75°	95.6	95.0	94.7	94.6	96.4	96.9	97.5	97.6	97.9	98.0	97.7
75.5°	92.7	92.1	91.7	91.6	93.4	94.0	94.6	94.9	95.0	95.1	95.0
76°	89.8	89.2	88.8	88.6	90.5	91.1	91.7	91.9	92.1	92.3	92.1
76.5°	86.9	86.3	85.8	85.8	87.7	88.3	88.8	89.0	89.3	89.4	89.2
77°	84.1	83.5	83.1	83.0	84.9	85.5	86.0	86.2	86.7	86.8	86.6
77.5°	81.5	80.8	80.4	80.1	82.0	82.8	83.3	83.5	83.9	84.0	83.9
78°	78.9	78.0	77.5	77.5	79.3	80.0	80.5	80.7	81.2	81.3	81.2
78.5°	76.1	75.4	74.7	74.6	76.5	77.1	77.7	77.9	78.4	78.6	78.5
79°	73.4	72.7	72.2	72.0	73.7	74.3	75.1	75.5	75.8	76.0	75.9
79.5°	70.9	70.0	69.5	69.3	71.0	71.7	72.4	72.7	73.2	73.4	73.2
80°	68.4	67.6	66.9	66.7	68.4	69.0	69.7	70.1	70.5	70.7	70.7
80.5°	66.0	65.1	64.5	64.4	65.8	66.5	67.1	67.7	68.1	68.3	68.2
81°	63.5	62.6	62.0	61.8	63.3	64.0	64.7	65.1	65.5	65.8	65.7
81.5°	61.1	60.1	59.5	59.2	60.9	61.5	62.2	62.6	63.1	63.3	63.2
82°	58.7	57.8	57.1	56.9	58.4	59.0	59.8	60.3	60.7	60.9	60.8
82.5°	56.5	55.4	54.8	54.5	56.0	56.6	57.4	57.9	58.3	58.5	58.5
83°	54.1	53.2	52.5	52.3	53.6	54.2	54.9	55.5	56.0	56.3	56.2
83.5°	52.0	50.9	50.3	49.9	51.4	52.0	52.7	53.4	53.8	54.0	54.0
84°	49.8	48.8	48.2	47.7	49.2	49.7	50.5	51.1	51.5	51.7	51.7
84.5°	47.6	46.7	46.0	45.7	46.9	47.6	48.3	48.9	49.4	49.6	49.6
85°	45.6	44.6	43.8	43.5	44.8	45.4	46.1	46.7	47.2	47.4	47.4
85.5°	43.5	42.5	41.8	41.5	42.6	43.2	44.0	44.6	45.2	45.3	45.4
86°	41.5	40.6	39.8	39.5	40.7	41.2	41.9	42.6	43.0	43.3	43.3
86.5°	39.5	38.6	37.9	37.5	38.6	39.2	39.9	40.6	41.1	41.3	41.3
87°	37.7	36.8	35.9	35.7	36.8	37.2	38.0	38.6	39.1	39.3	39.4
87.5°	36.1	35.0	34.2	34.0	34.8	35.3	36.0	36.8	37.2	37.5	37.5
88°	34.3	33.3	32.5	32.2	33.1	33.6	34.2	34.9	35.3	35.5	35.7
88.5°	32.5	31.6	30.8	30.5	31.2	31.7	32.3	33.1	33.6	33.8	33.9
89°	30.8	29.9	29.2	28.7	29.5	29.9	30.6	31.3	31.7	32.0	32.1
89.5°	29.0	28.1	27.5	27.1	27.8	28.2	29.0	29.6	30.0	30.3	30.4

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



TEST NUMBER: P855597
CATALOG NUMBER: HLS9129FS1EWH-5000K

CANDELA DISTRIBUTION (continued):

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

TEST NUMBER: P855597
 CATALOG NUMBER: HLS9129FS1EWH-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	425.3	425.3	425.3	425.3	425.3	425.3
0.5°	425.5	425.1	425.0	425.3	425.3	425.1
1°	425.0	424.6	425.0	425.0	425.2	424.8
1.5°	425.1	424.2	424.6	425.0	424.8	424.8
2°	425.0	424.5	424.5	424.6	424.6	424.6
2.5°	424.6	424.1	424.1	424.7	424.7	424.4
3°	424.1	423.6	424.1	424.2	424.5	424.6
3.5°	424.3	423.4	423.6	424.2	424.1	424.1
4°	423.7	423.1	423.2	423.6	424.0	424.0
4.5°	423.1	422.5	423.0	423.3	423.6	423.4
5°	422.9	422.5	422.3	423.0	423.0	423.2
5.5°	422.3	421.9	422.0	422.3	422.9	422.8
6°	422.1	421.2	421.7	422.0	422.6	422.6
6.5°	421.4	420.5	420.9	421.6	421.7	422.2
7°	420.8	420.5	420.5	421.1	421.3	421.8
7.5°	420.2	419.6	420.1	420.3	420.7	420.9
8°	419.9	418.8	419.2	419.7	420.2	420.5
8.5°	418.8	418.5	418.5	419.1	419.3	420.0
9°	418.4	417.7	417.9	418.2	419.2	419.5
9.5°	417.7	416.7	417.4	417.9	418.2	418.9
10°	417.1	416.4	416.3	417.1	417.7	418.3
10.5°	415.9	415.2	415.5	416.0	416.7	417.3
11°	415.3	414.6	414.9	415.3	416.1	416.4
11.5°	414.6	413.6	413.8	414.7	415.1	415.7
12°	413.3	413.0	412.8	413.7	414.3	415.2
12.5°	412.6	411.6	412.2	412.6	413.3	414.4
13°	411.8	410.8	411.1	411.9	412.4	413.2
13.5°	410.6	409.8	409.9	410.8	411.5	412.4
14°	409.3	408.8	409.2	409.6	410.6	411.4
14.5°	408.6	407.6	407.9	408.9	409.4	410.5
15°	407.7	406.9	406.7	407.5	408.3	409.4
15.5°	406.2	405.3	405.8	406.2	407.1	408.3
16°	405.2	404.3	404.6	405.3	406.3	407.4
16.5°	404.0	403.3	403.3	404.2	405.1	406.2
17°	402.8	402.0	402.3	402.7	404.1	404.8
17.5°	401.6	400.3	400.6	401.6	402.5	403.7
18°	400.3	399.5	399.5	400.2	401.2	402.5
18.5°	399.1	398.1	398.4	398.7	400.0	401.0
19°	397.3	396.8	397.1	397.6	398.6	399.8
19.5°	396.4	395.4	395.6	396.4	397.5	398.6
20°	394.7	393.7	394.2	394.6	396.1	397.2
20.5°	393.7	392.2	392.7	393.2	394.4	395.7
21°	391.8	391.0	391.2	392.0	393.0	394.4
21.5°	390.5	389.4	389.6	390.2	391.5	392.8
22°	388.9	388.0	388.2	388.7	389.7	391.5

TEST NUMBER: P855597
 CATALOG NUMBER: HLS9129FS1EWH-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	387.5	386.2	386.7	387.2	388.4	389.7
23°	385.6	384.7	384.9	385.6	387.0	388.3
23.5°	384.2	382.9	383.3	383.7	385.2	386.8
24°	382.7	381.3	381.5	382.5	383.7	385.2
24.5°	380.9	379.7	379.9	380.5	381.8	383.3
25°	379.1	378.0	378.2	378.8	380.1	381.7
25.5°	377.5	376.1	376.5	377.2	378.2	380.1
26°	375.5	374.7	374.4	375.5	376.8	378.2
26.5°	373.8	372.4	372.9	373.5	375.0	376.6
27°	371.9	370.6	371.0	371.7	372.8	374.8
27.5°	370.1	368.8	369.1	369.8	371.0	372.9
28°	368.0	367.0	367.3	367.7	369.3	370.8
28.5°	366.3	364.9	365.5	365.8	367.1	369.3
29°	364.5	363.1	363.2	364.1	365.3	367.3
29.5°	362.3	360.9	361.3	361.9	363.5	365.2
30°	360.3	358.9	359.2	359.7	361.4	363.1
30.5°	358.2	356.8	357.2	357.9	359.0	361.3
31°	356.3	355.0	355.2	355.5	357.5	358.9
31.5°	354.2	352.8	353.1	353.7	354.9	357.0
32°	352.2	350.7	350.9	351.3	352.9	355.0
32.5°	349.9	348.5	348.7	349.5	350.6	352.8
33°	347.8	346.3	346.5	347.0	348.7	350.6
33.5°	345.3	343.8	344.4	345.0	346.3	348.4
34°	343.2	341.9	342.1	342.6	344.0	346.0
34.5°	341.2	339.4	339.8	340.2	342.0	343.6
35°	338.6	337.2	337.4	338.1	339.5	341.7
35.5°	336.4	334.8	335.0	335.5	337.0	339.2
36°	334.1	332.4	332.8	333.3	334.9	337.0
36.5°	331.7	329.9	330.2	330.9	332.4	334.5
37°	329.1	327.9	327.8	328.4	330.0	331.9
37.5°	326.8	325.4	325.6	326.2	327.5	329.3
38°	324.4	322.7	323.0	323.5	324.8	327.2
38.5°	321.9	320.2	320.3	321.0	322.5	324.6
39°	319.4	317.9	318.1	318.6	320.0	322.0
39.5°	316.9	315.0	315.5	315.9	317.5	319.6
40°	314.3	312.7	312.7	313.6	314.8	316.8
40.5°	311.7	310.0	310.3	310.6	312.2	314.2
41°	309.1	307.4	307.5	308.2	309.7	311.5
41.5°	306.6	304.7	305.0	305.5	306.9	309.0
42°	303.8	302.3	302.3	302.9	304.1	306.1
42.5°	301.1	299.2	299.8	300.0	301.6	303.4
43°	298.6	296.7	296.7	297.5	298.9	300.8
43.5°	295.8	293.7	294.0	294.4	296.1	297.9
44°	292.8	291.3	291.4	291.7	293.2	295.1
44.5°	290.0	288.4	288.6	289.0	290.5	292.3

TEST NUMBER: P855597
 CATALOG NUMBER: HLS9129FS1EWH-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	287.3	285.5	285.5	286.2	287.7	289.3
45.5°	284.6	282.5	283.0	283.4	284.9	286.7
46°	281.7	279.9	280.0	280.3	281.9	283.7
46.5°	279.0	277.0	277.1	277.6	278.9	280.7
47°	275.9	274.2	274.3	274.6	276.2	277.7
47.5°	272.9	270.9	271.3	271.7	272.9	274.7
48°	270.1	268.3	268.2	268.7	270.0	271.8
48.5°	267.3	265.3	265.4	265.8	267.1	268.8
49°	264.1	262.2	262.4	262.7	264.1	265.8
49.5°	261.1	259.2	259.2	259.8	261.0	262.6
50°	258.1	256.2	256.4	256.6	258.2	259.4
50.5°	255.0	253.0	253.1	253.6	254.7	256.4
51°	252.1	250.2	250.1	250.7	251.6	253.2
51.5°	249.1	247.0	247.0	247.4	248.7	250.0
52°	245.9	243.8	244.0	244.4	245.7	247.0
52.5°	242.6	240.7	240.6	241.2	242.4	243.8
53°	239.6	237.6	237.7	238.0	239.1	240.4
53.5°	236.6	234.4	234.4	234.7	235.9	237.2
54°	233.3	231.3	231.3	231.6	232.8	234.0
54.5°	230.1	228.0	227.9	228.4	229.5	230.6
55°	226.9	224.8	224.8	225.3	226.4	227.3
55.5°	223.7	221.6	221.6	221.9	222.9	224.1
56°	220.4	218.5	218.4	218.8	219.6	220.7
56.5°	217.2	215.3	215.0	215.3	216.5	217.2
57°	213.9	211.8	211.7	212.0	213.0	214.1
57.5°	210.6	208.6	208.5	208.8	209.7	210.7
58°	207.4	205.4	205.2	205.5	206.5	207.3
58.5°	204.1	202.0	201.8	202.3	203.0	203.8
59°	200.7	198.8	198.7	198.9	199.7	200.5
59.5°	197.5	195.4	195.2	195.4	196.5	197.0
60°	194.1	192.2	191.9	192.2	192.9	193.7
60.5°	191.0	188.8	188.7	188.7	189.5	190.2
61°	187.5	185.4	185.3	185.5	186.2	186.8
61.5°	184.2	182.0	181.8	182.0	182.9	183.4
62°	180.8	178.9	178.6	178.9	179.5	180.0
62.5°	177.5	175.5	175.2	175.4	176.1	176.5
63°	174.1	172.2	171.9	172.2	172.7	173.2
63.5°	170.8	168.8	168.5	168.7	169.2	169.8
64°	167.5	165.4	165.3	165.3	165.9	166.2
64.5°	164.2	162.1	161.9	162.0	162.5	162.8
65°	160.7	158.8	158.5	158.7	159.1	159.4
65.5°	157.6	155.4	155.2	155.2	155.9	156.1
66°	154.3	152.3	152.0	152.0	152.6	152.7
66.5°	150.9	148.8	148.6	148.7	149.1	149.4
67°	147.6	145.8	145.5	145.4	145.8	145.9

TEST NUMBER: P855597
 CATALOG NUMBER: HLS9129FS1EWH-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	144.4	142.4	142.1	142.1	142.5	142.6
68°	141.1	139.2	138.8	138.9	139.2	139.4
68.5°	137.9	135.9	135.6	135.7	135.9	136.1
69°	134.7	132.8	132.4	132.5	132.9	132.8
69.5°	131.5	129.6	129.2	129.2	129.5	129.5
70°	128.2	126.4	126.2	126.1	126.3	126.3
70.5°	125.1	123.2	122.9	122.9	123.1	123.0
71°	122.0	120.1	119.8	119.9	120.1	119.9
71.5°	118.9	117.0	116.7	116.7	116.9	116.8
72°	115.8	114.1	113.8	113.6	113.8	113.7
72.5°	112.7	111.0	110.5	110.6	110.7	110.5
73°	109.7	107.9	107.6	107.6	107.7	107.4
73.5°	106.7	104.9	104.6	104.6	104.7	104.4
74°	103.7	102.1	101.7	101.7	101.7	101.4
74.5°	100.7	99.1	98.8	98.8	98.8	98.5
75°	97.9	96.2	95.9	95.9	95.9	95.6
75.5°	95.1	93.3	93.0	93.0	93.0	92.7
76°	92.2	90.7	90.2	90.2	90.1	89.8
76.5°	89.3	87.8	87.5	87.4	87.4	86.9
77°	86.7	85.0	84.8	84.7	84.6	84.1
77.5°	84.0	82.3	82.1	82.0	81.9	81.5
78°	81.3	79.7	79.5	79.4	79.3	78.9
78.5°	78.6	77.1	76.8	76.7	76.7	76.1
79°	76.0	74.5	74.2	74.1	74.0	73.4
79.5°	73.4	71.9	71.7	71.6	71.5	70.9
80°	70.8	69.4	69.2	69.1	69.0	68.4
80.5°	68.3	66.9	66.7	66.7	66.5	66.0
81°	65.9	64.6	64.4	64.3	64.2	63.5
81.5°	63.5	62.1	61.9	61.8	61.7	61.1
82°	61.0	59.8	59.7	59.5	59.4	58.7
82.5°	58.6	57.5	57.4	57.3	57.1	56.5
83°	56.5	55.2	55.1	55.0	54.8	54.1
83.5°	54.1	53.0	53.0	52.9	52.7	52.0
84°	52.0	50.8	50.8	50.7	50.5	49.8
84.5°	49.8	48.8	48.8	48.7	48.5	47.6
85°	47.7	46.6	46.6	46.5	46.3	45.6
85.5°	45.6	44.7	44.7	44.6	44.3	43.5
86°	43.6	42.6	42.7	42.6	42.3	41.5
86.5°	41.6	40.7	40.8	40.7	40.3	39.5
87°	39.6	38.8	38.8	38.8	38.5	37.7
87.5°	37.8	37.1	37.1	37.0	36.7	36.1
88°	35.9	35.3	35.4	35.3	35.0	34.3
88.5°	34.2	33.7	33.7	33.6	33.3	32.5
89°	32.4	32.0	32.0	31.9	31.6	30.8
89.5°	30.7	30.3	30.4	30.3	29.9	29.0

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



TEST NUMBER: P855597
CATALOG NUMBER: HLS9129FS1EWH-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)