

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P584770

Luminaire Tested: **HCC8S45D010MW-HM82555940-81RWWH**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P584770
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC8S45D010MW-HM82555940-81RWWH
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4863.3 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.16
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

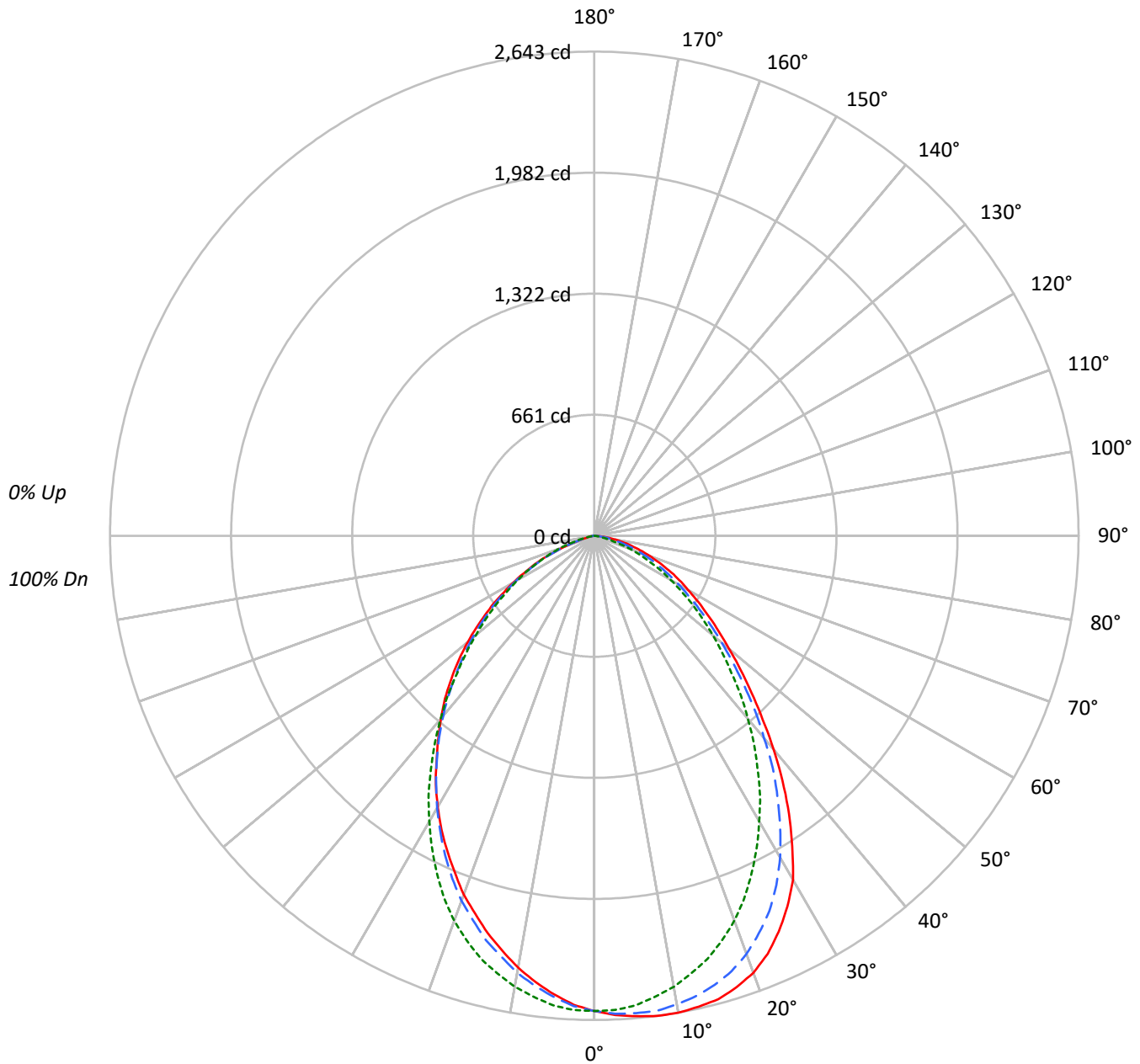
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P584770

CATALOG NUMBER: HCC8S45D010MW-HM82555940-81RWWH

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P584770

CATALOG NUMBER: HCC8S45D010MW-HM82555940-81RWWH

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77		
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67		
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59		
5	81	70	62	56	79	69	62	56	67	60	55	65	59	55	63	58	54	52		
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47		
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42		
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38		
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35		
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	79996	79996	79996
5°	81496	79648	77800
10°	82770	78258	74958
15°	83603	76308	71708
20°	83282	73362	68404
25°	81090	69130	64581
30°	77227	64081	60831
35°	69736	58492	56504
40°	61271	52495	52354
45°	52889	46138	48136
50°	46035	40470	43171
55°	40821	35149	37606
60°	36418	29702	31213
65°	32834	24108	24626
70°	29158	18059	14570
75°	25127	10473	6291
80°	19356	3747	1882
85°	12454	1238	1238

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P584770

CATALOG NUMBER: HCC8S45D010MW-HM82555940-81RWWH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.5	5.0
10°-20°	677.9	13.9
20°-30°	958.9	19.7
30°-40°	1010.4	20.8
40°-50°	858.7	17.7
50°-60°	618.3	12.7
60°-70°	356.7	7.3
70°-80°	122.1	2.5
80°-90°	16.8	0.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1880.3	38.7
0°-40°	2890.7	59.4
0°-60°	4367.7	89.8
0°-90°	4863.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4863.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2594	2594	2594	2594	2594	
5°	2633	2615	2573	2527	2513	252
15°	2619	2538	2390	2285	2246	737
25°	2383	2260	2032	1926	1898	1093
35°	1852	1744	1554	1498	1501	1154
45°	1213	1156	1058	1065	1104	942
55°	759	700	654	678	700	683
65°	450	387	330	323	338	448
75°	211	158	88	56	53	223
85°	35	21	4	4	4	47
90°	0	0	0	0	0	

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P584770

CATALOG NUMBER: HCC8S45D010MW-HM82555940-81RWWH

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2594.2	2594.2	2594.2	2594.2	2594.2	2594.2	2594.2	2594.2	2594.2	2594.2	2594.2
2.5°	2618.8	2622.4	2618.8	2618.8	2615.3	2611.8	2608.3	2604.8	2597.7	2590.7	2590.7
5°	2632.8	2639.8	2632.8	2632.8	2622.4	2615.3	2608.3	2597.7	2583.6	2573.1	2573.1
7.5°	2643.4	2643.4	2643.4	2632.8	2625.9	2615.3	2597.7	2580.1	2562.5	2544.9	2537.9
10°	2643.4	2643.4	2639.8	2625.9	2618.8	2597.7	2580.1	2555.5	2530.9	2506.3	2499.3
12.5°	2632.8	2636.3	2629.3	2615.3	2597.7	2573.1	2548.5	2516.9	2488.8	2460.6	2446.5
15°	2618.8	2615.3	2608.3	2590.7	2569.6	2537.9	2513.4	2478.2	2439.5	2404.4	2390.3
17.5°	2583.6	2583.6	2573.1	2555.5	2527.3	2492.3	2453.6	2414.9	2372.7	2334.0	2316.4
20°	2537.9	2537.9	2523.8	2502.8	2474.7	2428.9	2386.8	2341.1	2291.9	2253.2	2235.6
22.5°	2471.2	2474.7	2457.1	2432.5	2400.9	2348.1	2305.9	2249.7	2200.4	2154.8	2140.7
25°	2383.3	2390.3	2372.7	2348.1	2305.9	2260.3	2207.5	2154.8	2098.5	2052.9	2031.8
27.5°	2281.4	2284.9	2267.3	2242.7	2200.4	2151.3	2098.5	2042.3	1989.5	1940.4	1919.3
30°	2168.9	2154.8	2147.8	2116.1	2070.5	2028.2	1968.5	1922.8	1866.6	1824.4	1799.7
32.5°	2010.6	2017.7	1996.6	1972.0	1936.9	1887.6	1838.4	1785.7	1733.0	1701.3	1683.7
35°	1852.5	1859.6	1849.0	1824.4	1785.7	1743.5	1694.3	1655.7	1609.9	1571.2	1553.8
37.5°	1687.2	1687.2	1680.2	1666.1	1638.1	1599.4	1550.2	1511.5	1472.8	1441.3	1430.7
40°	1522.1	1515.0	1511.5	1501.0	1476.3	1441.3	1409.6	1377.9	1339.3	1318.2	1304.1
42.5°	1360.3	1360.3	1353.3	1342.7	1318.2	1300.6	1269.0	1233.8	1205.7	1184.6	1184.6
45°	1212.8	1216.3	1205.7	1198.7	1184.6	1156.5	1128.3	1103.8	1079.2	1065.1	1058.0
47.5°	1082.7	1082.7	1072.1	1065.1	1051.0	1026.4	1001.9	980.7	963.2	952.6	949.1
50°	959.6	959.6	959.6	942.0	924.4	907.0	889.4	864.7	854.2	847.1	843.6
52.5°	854.2	850.7	850.7	836.6	819.0	798.0	780.4	759.3	748.7	741.7	745.2
55°	759.3	759.3	755.8	738.2	720.6	699.5	682.0	664.4	657.3	650.3	653.8
56°	720.6	720.6	717.1	703.0	682.0	664.4	643.3	625.7	615.1	618.6	618.6
57°	692.5	685.5	685.5	667.9	650.3	625.7	608.1	590.5	583.6	580.0	580.0
58°	657.3	653.8	650.3	632.7	615.1	594.0	576.5	558.9	548.4	548.4	544.9
59°	622.2	622.2	615.1	601.0	583.6	562.5	544.9	527.3	516.7	513.2	513.2
60°	590.5	594.0	583.6	569.5	555.4	530.8	509.7	495.6	485.0	481.6	481.6
61°	562.5	562.5	555.4	537.8	520.2	502.6	481.6	464.0	457.0	450.0	450.0
62°	537.8	530.8	527.3	509.7	492.1	471.1	453.5	435.9	425.3	418.3	421.8
63°	506.1	502.6	495.6	481.6	464.0	442.9	421.8	407.7	397.2	386.6	390.1
64°	481.6	478.1	467.6	453.5	435.9	414.8	393.7	379.6	372.7	362.1	358.6
65°	450.0	446.4	442.9	425.3	407.7	386.6	369.1	355.1	344.5	337.5	330.4
66°	421.8	425.3	418.3	404.2	383.1	365.6	341.0	326.9	319.9	309.3	302.3
67°	397.2	397.2	390.1	376.1	355.1	337.5	319.9	302.3	291.7	281.2	277.6
67.5°	383.1	383.1	376.1	358.6	344.5	323.4	305.8	291.7	277.6	270.6	263.7
68°	369.1	369.1	365.6	351.5	334.0	312.8	295.2	277.6	263.7	253.1	249.6
69°	344.5	348.0	341.0	326.9	309.3	288.2	270.6	256.7	242.6	232.0	225.0
70°	323.4	319.9	312.8	298.8	281.2	267.2	249.6	232.0	217.9	203.9	200.3
71°	295.2	295.2	288.2	277.6	260.2	242.6	225.0	210.9	196.8	179.2	175.7
72°	274.1	274.1	267.2	253.1	239.1	221.5	203.9	186.3	175.7	158.2	151.2
72.5°	260.2	263.7	256.7	242.6	228.5	207.4	193.3	179.2	161.6	147.7	140.6
73°	253.1	249.6	246.1	232.0	214.4	200.3	182.8	168.7	151.2	137.1	130.1

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



TEST NUMBER: P584770

CATALOG NUMBER: HCC8S45D010MW-HM82555940-81RWWH

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	158.2	158.2	154.7	140.6	126.6	112.5	98.4	84.3	70.3	56.2	49.3
80°	109.0	112.5	105.5	98.4	87.9	73.8	59.7	49.3	35.2	28.2	21.1
82.5°	70.3	70.3	66.7	59.7	52.8	42.2	35.2	24.6	17.6	14.1	10.6
85°	35.2	38.7	35.2	31.7	24.6	21.1	17.6	10.6	7.0	3.5	3.5
87.5°	14.1	14.1	14.1	10.6	10.6	7.0	3.5	3.5	3.5	0.0	0.0
90°	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: P584770

CATALOG NUMBER: HCC8S45D010MW-HM82555940-81RWWH

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2594.2	2594.2	2594.2	2594.2	2594.2	2594.2	2594.2	2594.2	2594.2	2594.2
2.5°	2583.6	2583.6	2576.6	2573.1	2569.6	2566.1	2562.5	2559.0	2559.0	2562.5
5°	2562.5	2555.5	2541.4	2537.9	2527.3	2523.8	2516.9	2513.4	2516.9	2513.4
7.5°	2530.9	2516.9	2499.3	2492.3	2478.2	2471.2	2460.6	2460.6	2453.6	2457.1
10°	2488.8	2467.6	2446.5	2432.5	2421.9	2411.5	2404.4	2397.4	2393.9	2393.9
12.5°	2436.0	2411.5	2390.3	2369.2	2351.6	2344.6	2330.5	2330.5	2323.5	2320.0
15°	2376.3	2344.6	2320.0	2299.0	2284.9	2270.8	2260.3	2253.2	2246.2	2246.2
17.5°	2299.0	2270.8	2246.2	2221.5	2200.4	2190.0	2179.4	2168.9	2168.9	2161.8
20°	2214.5	2183.0	2161.8	2137.2	2119.6	2102.0	2088.1	2088.1	2081.0	2084.5
22.5°	2119.6	2081.0	2059.9	2042.3	2024.7	2010.6	1996.6	1996.6	1993.0	1989.5
25°	2014.2	1982.6	1958.0	1936.9	1926.3	1912.2	1908.7	1901.7	1898.1	1898.1
27.5°	1901.7	1877.0	1845.5	1834.9	1820.8	1813.8	1813.8	1810.3	1803.3	1806.8
30°	1782.1	1754.1	1736.5	1729.5	1715.4	1715.4	1711.9	1704.8	1704.8	1708.4
32.5°	1666.1	1638.1	1624.0	1620.5	1606.4	1606.4	1602.9	1606.4	1606.4	1609.9
35°	1539.7	1515.0	1511.5	1501.0	1497.5	1497.5	1497.5	1504.5	1511.5	1501.0
37.5°	1420.2	1402.6	1392.0	1388.5	1392.0	1392.0	1395.5	1406.1	1402.6	1399.0
40°	1297.1	1283.0	1276.0	1276.0	1283.0	1290.1	1290.1	1300.6	1304.1	1300.6
42.5°	1174.1	1163.5	1163.5	1167.0	1174.1	1177.6	1188.1	1198.7	1202.2	1205.7
45°	1058.0	1058.0	1058.0	1061.6	1065.1	1072.1	1086.2	1096.8	1100.3	1103.8
47.5°	945.6	942.0	952.6	956.1	966.7	970.2	980.7	994.8	998.3	1001.9
50°	840.1	847.1	850.7	861.2	868.3	868.3	882.3	889.4	899.9	899.9
52.5°	741.7	752.2	755.8	766.3	769.8	773.4	780.4	791.0	798.0	798.0
55°	653.8	657.3	664.4	667.9	678.5	682.0	689.0	692.5	703.0	699.5
56°	615.1	622.2	625.7	632.7	639.8	643.3	650.3	653.8	660.9	664.4
57°	580.0	583.6	594.0	597.5	604.6	604.6	608.1	618.6	618.6	622.2
58°	544.9	551.9	555.4	558.9	566.0	569.5	576.5	580.0	583.6	580.0
59°	513.2	516.7	520.2	520.2	527.3	527.3	537.8	544.9	548.4	548.4
60°	481.6	481.6	485.0	488.6	495.6	499.1	499.1	506.1	506.1	506.1
61°	450.0	450.0	453.5	457.0	460.5	460.5	467.6	467.6	471.1	474.6
62°	421.8	418.3	418.3	421.8	421.8	428.8	432.4	435.9	439.4	435.9
63°	390.1	386.6	386.6	386.6	386.6	393.7	393.7	397.2	404.2	400.7
64°	355.1	355.1	355.1	355.1	358.6	358.6	365.6	369.1	372.7	376.1
65°	330.4	323.4	319.9	319.9	323.4	326.9	330.4	334.0	337.5	337.5
66°	302.3	295.2	291.7	291.7	291.7	291.7	298.8	298.8	305.8	305.8
67°	270.6	263.7	260.2	256.7	256.7	256.7	267.2	263.7	263.7	263.7
67.5°	260.2	249.6	246.1	242.6	239.1	246.1	242.6	246.1	246.1	242.6
68°	246.1	239.1	232.0	225.0	225.0	225.0	228.5	232.0	228.5	225.0
69°	217.9	214.4	203.9	196.8	193.3	196.8	193.3	196.8	193.3	196.8
70°	193.3	182.8	172.2	168.7	165.2	165.2	165.2	161.6	165.2	161.6
71°	168.7	158.2	147.7	140.6	137.1	137.1	133.6	137.1	133.6	137.1
72°	144.2	133.6	119.5	112.5	112.5	112.5	112.5	109.0	112.5	109.0
72.5°	133.6	119.5	109.0	101.9	98.4	98.4	98.4	98.4	94.9	98.4
73°	123.0	109.0	94.9	91.4	91.4	91.4	87.9	84.3	87.9	87.9



TEST NUMBER: P584770

CATALOG NUMBER: HCC8S45D010MW-HM82555940-81RWWH

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	42.2	31.7	28.2	28.2	28.2	28.2	28.2	28.2	24.6	24.6
80°	17.6	14.1	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
82.5°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
85°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



Report Generated By 670245859 / DESKTOP-T8S5UU9

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



— 0°-180° - - 45°-225° - - - 90°-270°

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



74°	228.5	228.5	221.5	210.9	193.3	175.7	161.6	147.7	130.1	112.5	105.5
75°	210.9	207.4	200.3	189.8	175.7	158.2	144.2	126.6	112.5	94.9	87.9

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report





74°	101.9	84.3	77.3	70.3	70.3	70.3	66.7	66.7	66.7	70.3
75°	80.8	66.7	59.7	52.8	56.2	52.8	56.2	52.8	52.8	52.8

Classified

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)