

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



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: P584821

Luminaire Tested: **HCC8W50D010BZ-HM82555835-81RWWH**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584821  
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: HCC8W50D010BZ-HM82555835-81RWWH  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

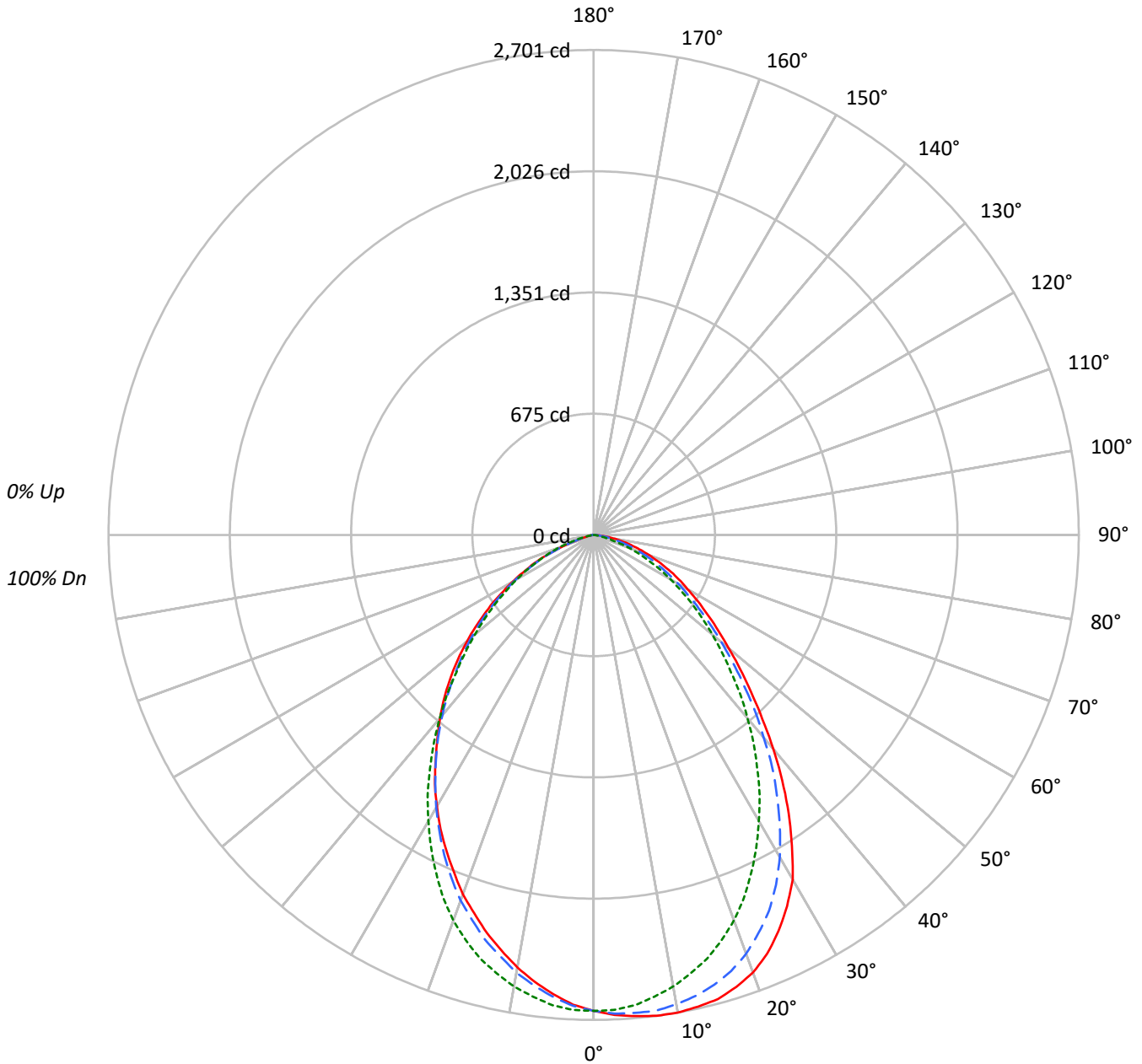
Lumens per Lamp: N/A  
Luminaire Lumens: 4969.4 lumens  
Efficiency: N/A  
Efficacy: 103.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.16  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P584821  
CATALOG NUMBER: HCC8W50D010BZ-HM82555835-81RWWH

### Luminous Intensity Polar Plot



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



TEST NUMBER: P584821

CATALOG NUMBER: HCC8W50D010BZ-HM82555835-81RWWH

**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	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°	81741	81741	81741
5°	83276	81388	79496
10°	84577	79965	76592
15°	85429	77975	73272
20°	85100	74967	69897
25°	82859	70637	65993
30°	78912	65484	62159
35°	71260	59764	57735
40°	62603	53638	53497
45°	54045	47150	49187
50°	47042	41353	44111
55°	41714	35918	38429
60°	37213	30343	31903
65°	33549	24633	25166
70°	29798	18456	14894
75°	25687	10699	6422
80°	19782	3818	1918
85°	12702	1274	1274



TEST NUMBER: P584821  
 CATALOG NUMBER: HCC8W50D010BZ-HM82555835-81RWWH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	248.8	5.0
10°-20°	692.7	13.9
20°-30°	979.8	19.7
30°-40°	1032.4	20.8
40°-50°	877.4	17.7
50°-60°	631.8	12.7
60°-70°	364.5	7.3
70°-80°	124.7	2.5
80°-90°	17.1	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°	1921.4	38.7
0°-40°	2953.8	59.4
0°-60°	4463.1	89.8
0°-90°	4969.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4969.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2651	2651	2651	2651	2651	
5°	2690	2672	2629	2583	2568	257
15°	2676	2593	2442	2335	2295	753
25°	2435	2310	2076	1968	1940	1117
35°	1893	1782	1588	1530	1534	1179
45°	1239	1182	1081	1088	1128	963
55°	776	715	668	693	715	698
65°	460	395	338	330	345	457
75°	216	162	90	58	54	227
85°	36	22	4	4	4	48
90°	0	0	0	0	0	



TEST NUMBER: P584821

CATALOG NUMBER: HCC8W50D010BZ-HM82555835-81RWWH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2650.8	2650.8	2650.8	2650.8	2650.8	2650.8	2650.8	2650.8	2650.8	2650.8	2650.8
2.5°	2676.0	2679.6	2676.0	2676.0	2672.3	2668.8	2665.2	2661.6	2654.4	2647.2	2647.2
5°	2690.3	2697.5	2690.3	2690.3	2679.6	2672.3	2665.2	2654.4	2640.1	2629.3	2629.3
7.5°	2701.1	2701.1	2701.1	2690.3	2683.1	2672.3	2654.4	2636.4	2611.3	2586.2	2553.8
10°	2701.1	2701.1	2697.5	2683.1	2676.0	2654.4	2636.4	2611.3	2586.2	2561.0	2553.8
12.5°	2690.3	2694.0	2686.7	2672.3	2654.4	2629.3	2604.2	2571.8	2543.0	2514.3	2499.9
15°	2676.0	2672.3	2665.2	2647.2	2625.7	2593.3	2568.2	2532.3	2492.8	2456.9	2442.5
17.5°	2640.1	2640.1	2629.3	2611.3	2582.6	2546.7	2507.2	2467.6	2424.5	2385.0	2367.1
20°	2593.3	2593.3	2578.9	2557.4	2528.7	2482.0	2438.9	2392.2	2341.9	2302.5	2284.5
22.5°	2525.2	2528.7	2510.8	2485.6	2453.3	2399.4	2356.2	2298.8	2248.6	2201.8	2187.4
25°	2435.3	2442.5	2424.5	2399.4	2356.2	2309.6	2255.7	2201.8	2144.4	2097.7	2076.1
27.5°	2331.1	2334.7	2316.7	2291.6	2248.6	2198.2	2144.4	2086.9	2033.0	1982.7	1961.2
30°	2216.2	2201.8	2194.7	2162.3	2115.7	2072.5	2011.5	1964.7	1907.3	1864.2	1839.1
32.5°	2054.5	2061.8	2040.1	2015.0	1979.1	1928.8	1878.6	1824.7	1770.8	1738.4	1720.5
35°	1893.0	1900.1	1889.3	1864.2	1824.7	1781.6	1731.3	1691.8	1645.1	1605.6	1587.6
37.5°	1724.2	1724.2	1716.9	1702.5	1673.8	1634.3	1584.0	1544.5	1505.0	1472.7	1462.0
40°	1555.2	1548.1	1544.5	1533.7	1508.6	1472.7	1440.3	1408.1	1368.5	1346.9	1332.5
42.5°	1390.1	1390.1	1382.9	1372.1	1346.9	1329.0	1296.7	1260.8	1232.0	1210.5	1210.5
45°	1239.3	1242.8	1232.0	1224.9	1210.5	1181.7	1153.0	1127.9	1102.7	1088.3	1081.2
47.5°	1106.3	1106.3	1095.5	1088.3	1074.0	1048.8	1023.7	1002.2	984.2	973.4	969.8
50°	980.6	980.6	980.6	962.7	944.7	926.7	908.8	883.6	872.8	865.6	862.0
52.5°	872.8	869.3	869.3	854.9	836.9	815.4	797.4	775.9	765.1	757.9	761.5
55°	775.9	775.9	772.2	754.4	736.4	714.8	696.8	678.8	671.7	664.5	668.1
56°	736.4	736.4	732.7	718.4	696.8	678.8	657.3	639.3	628.6	632.2	632.2
57°	707.6	700.5	700.5	682.5	664.5	639.3	621.4	603.4	596.3	592.7	592.7
58°	671.7	668.1	664.5	646.6	628.6	607.1	589.1	571.1	560.3	560.3	556.8
59°	635.8	635.8	628.6	614.2	596.3	574.7	556.8	538.8	528.0	524.4	524.4
60°	603.4	607.1	596.3	581.9	567.5	542.4	520.8	506.4	495.7	492.0	492.0
61°	574.7	574.7	567.5	549.5	531.5	513.7	492.0	474.1	466.9	459.8	459.8
62°	549.5	542.4	538.8	520.8	502.9	481.3	463.4	445.4	434.6	427.4	431.0
63°	517.3	513.7	506.4	492.0	474.1	452.6	431.0	416.6	405.9	395.1	398.7
64°	492.0	488.5	477.8	463.4	445.4	423.9	402.3	387.9	380.7	370.0	366.4
65°	459.8	456.1	452.6	434.6	416.6	395.1	377.1	362.7	352.0	344.9	337.6
66°	431.0	434.6	427.4	413.1	391.5	373.6	348.4	334.1	326.9	316.1	308.8
67°	405.9	405.9	398.7	384.4	362.7	344.9	326.9	308.8	298.1	287.3	283.7
67.5°	391.5	391.5	384.4	366.4	352.0	330.5	312.5	298.1	283.7	276.6	269.3
68°	377.1	377.1	373.6	359.2	341.2	319.7	301.7	283.7	269.3	258.6	255.1
69°	352.0	355.6	348.4	334.1	316.1	294.6	276.6	262.2	247.8	237.1	229.8
70°	330.5	326.9	319.7	305.3	287.3	273.0	255.1	237.1	222.7	208.3	204.7
71°	301.7	301.7	294.6	283.7	265.8	247.8	229.8	215.6	201.2	183.2	179.6
72°	280.2	280.2	273.0	258.6	244.2	226.3	208.3	190.3	179.6	161.7	154.4
72.5°	265.8	269.3	262.2	247.8	233.4	211.9	197.6	183.2	165.2	150.9	143.7
73°	258.6	255.1	251.5	237.1	219.1	204.7	186.8	172.4	154.4	140.0	132.9



TEST NUMBER: P584821  
 CATALOG NUMBER: HCC8W50D010BZ-HM82555835-81RWWH

**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	161.7	161.7	158.0	143.7	129.3	114.9	100.5	86.2	71.9	57.5	50.3
80°	111.4	114.9	107.8	100.5	89.8	75.4	61.0	50.3	35.9	28.8	21.5
82.5°	71.9	71.9	68.3	61.0	53.9	43.1	35.9	25.1	18.0	14.4	10.8
85°	35.9	39.5	35.9	32.4	25.1	21.5	18.0	10.8	7.1	3.6	3.6
87.5°	14.4	14.4	14.4	10.8	10.8	7.1	3.6	3.6	3.6	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: P584821

CATALOG NUMBER: HCC8W50D010BZ-HM82555835-81RWWH

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2650.8	2650.8	2650.8	2650.8	2650.8	2650.8	2650.8	2650.8	2650.8	2650.8
2.5°	2640.1	2640.1	2632.8	2629.3	2625.7	2622.1	2618.4	2614.9	2614.9	2618.4
5°	2618.4	2611.3	2596.9	2593.3	2582.6	2578.9	2571.8	2568.2	2571.8	2568.2
7.5°	2586.2	2571.8	2553.8	2546.7	2532.3	2525.2	2514.3	2514.3	2507.2	2510.8
10°	2543.0	2521.5	2499.9	2485.6	2474.8	2464.0	2456.9	2449.6	2446.1	2446.1
12.5°	2489.2	2464.0	2442.5	2420.9	2403.0	2395.7	2381.4	2381.4	2374.2	2370.6
15°	2428.1	2395.7	2370.6	2349.1	2334.7	2320.3	2309.6	2302.5	2295.2	2295.2
17.5°	2349.1	2320.3	2295.2	2270.1	2248.6	2237.7	2226.9	2216.2	2216.2	2209.1
20°	2263.0	2230.6	2209.1	2183.9	2165.9	2147.9	2133.5	2133.5	2126.4	2130.0
22.5°	2165.9	2126.4	2104.9	2086.9	2068.9	2054.5	2040.1	2040.1	2036.6	2033.0
25°	2058.1	2025.9	2000.6	1979.1	1968.4	1954.0	1950.4	1943.2	1939.6	1939.6
27.5°	1943.2	1918.1	1885.7	1875.0	1860.6	1853.4	1853.4	1849.8	1842.7	1846.2
30°	1821.1	1792.3	1774.4	1767.2	1752.8	1752.8	1749.3	1742.0	1742.0	1745.7
32.5°	1702.5	1673.8	1659.5	1655.9	1641.5	1641.5	1637.9	1641.5	1641.5	1645.1
35°	1573.2	1548.1	1544.5	1533.7	1530.1	1530.1	1530.1	1537.4	1544.5	1533.7
37.5°	1451.1	1433.2	1422.4	1418.8	1422.4	1422.4	1425.9	1436.7	1433.2	1429.6
40°	1325.4	1311.0	1303.9	1303.9	1311.0	1318.3	1318.3	1329.0	1332.5	1329.0
42.5°	1199.7	1188.9	1188.9	1192.5	1199.7	1203.3	1214.0	1224.9	1228.4	1232.0
45°	1081.2	1081.2	1081.2	1084.7	1088.3	1095.5	1109.8	1120.7	1124.2	1127.9
47.5°	966.2	962.7	973.4	977.1	987.8	991.3	1002.2	1016.6	1020.1	1023.7
50°	858.5	865.6	869.3	880.0	887.2	887.2	901.5	908.8	919.5	919.5
52.5°	757.9	768.6	772.2	783.0	786.6	790.2	797.4	808.1	815.4	815.4
55°	668.1	671.7	678.8	682.5	693.2	696.8	704.0	707.6	718.4	714.8
56°	628.6	635.8	639.3	646.6	653.7	657.3	664.5	668.1	675.3	678.8
57°	592.7	596.3	607.1	610.6	617.8	617.8	621.4	632.2	632.2	635.8
58°	556.8	563.9	567.5	571.1	578.3	581.9	589.1	592.7	596.3	592.7
59°	524.4	528.0	531.5	531.5	538.8	538.8	549.5	556.8	560.3	560.3
60°	492.0	492.0	495.7	499.3	506.4	510.0	510.0	517.3	517.3	517.3
61°	459.8	459.8	463.4	466.9	470.5	470.5	477.8	477.8	481.3	484.9
62°	431.0	427.4	427.4	431.0	431.0	438.3	441.8	445.4	449.0	445.4
63°	398.7	395.1	395.1	395.1	395.1	402.3	402.3	405.9	413.1	409.5
64°	362.7	362.7	362.7	362.7	366.4	366.4	373.6	377.1	380.7	384.4
65°	337.6	330.5	326.9	326.9	330.5	334.1	337.6	341.2	344.9	344.9
66°	308.8	301.7	298.1	298.1	298.1	298.1	305.3	305.3	312.5	312.5
67°	276.6	269.3	265.8	262.2	262.2	262.2	273.0	269.3	269.3	269.3
67.5°	265.8	255.1	251.5	247.8	244.2	251.5	247.8	251.5	251.5	247.8
68°	251.5	244.2	237.1	229.8	229.8	229.8	233.4	237.1	233.4	229.8
69°	222.7	219.1	208.3	201.2	197.6	201.2	197.6	201.2	197.6	201.2
70°	197.6	186.8	176.1	172.4	168.8	168.8	168.8	165.2	168.8	165.2
71°	172.4	161.7	150.9	143.7	140.0	140.0	136.5	140.0	136.5	140.0
72°	147.3	136.5	122.2	114.9	114.9	114.9	114.9	111.4	114.9	111.4
72.5°	136.5	122.2	111.4	104.2	100.5	100.5	100.5	100.5	97.0	100.5
73°	125.7	111.4	97.0	93.4	93.4	93.4	89.8	86.2	89.8	89.8





TEST NUMBER: P584821  
 CATALOG NUMBER: HCC8W50D010BZ-HM82555835-81RWWH

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	43.1	32.4	28.8	28.8	28.8	28.8	28.8	28.8	25.1	25.1
80°	18.0	14.4	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
82.5°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
85°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
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  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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



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

Scaled Data Report



74°	233.4	233.4	226.3	215.6	197.6	179.6	165.2	150.9	132.9	114.9	107.8
75°	215.6	211.9	204.7	193.9	179.6	161.7	147.3	129.3	114.9	97.0	89.8

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



74°	104.2	86.2	79.0	71.9	71.9	71.9	68.3	68.3	68.3	71.9
75°	82.6	68.3	61.0	53.9	57.5	53.9	57.5	53.9	53.9	53.9

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

Scaled Data Report



(END OF REPORT)