

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: P593614

Luminaire Tested: **HCC8W20D010MB-HM80520950-81RWWH**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593614  
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: HCC8W20D010MB-HM80520950-81RWWH  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
CYLINDER  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

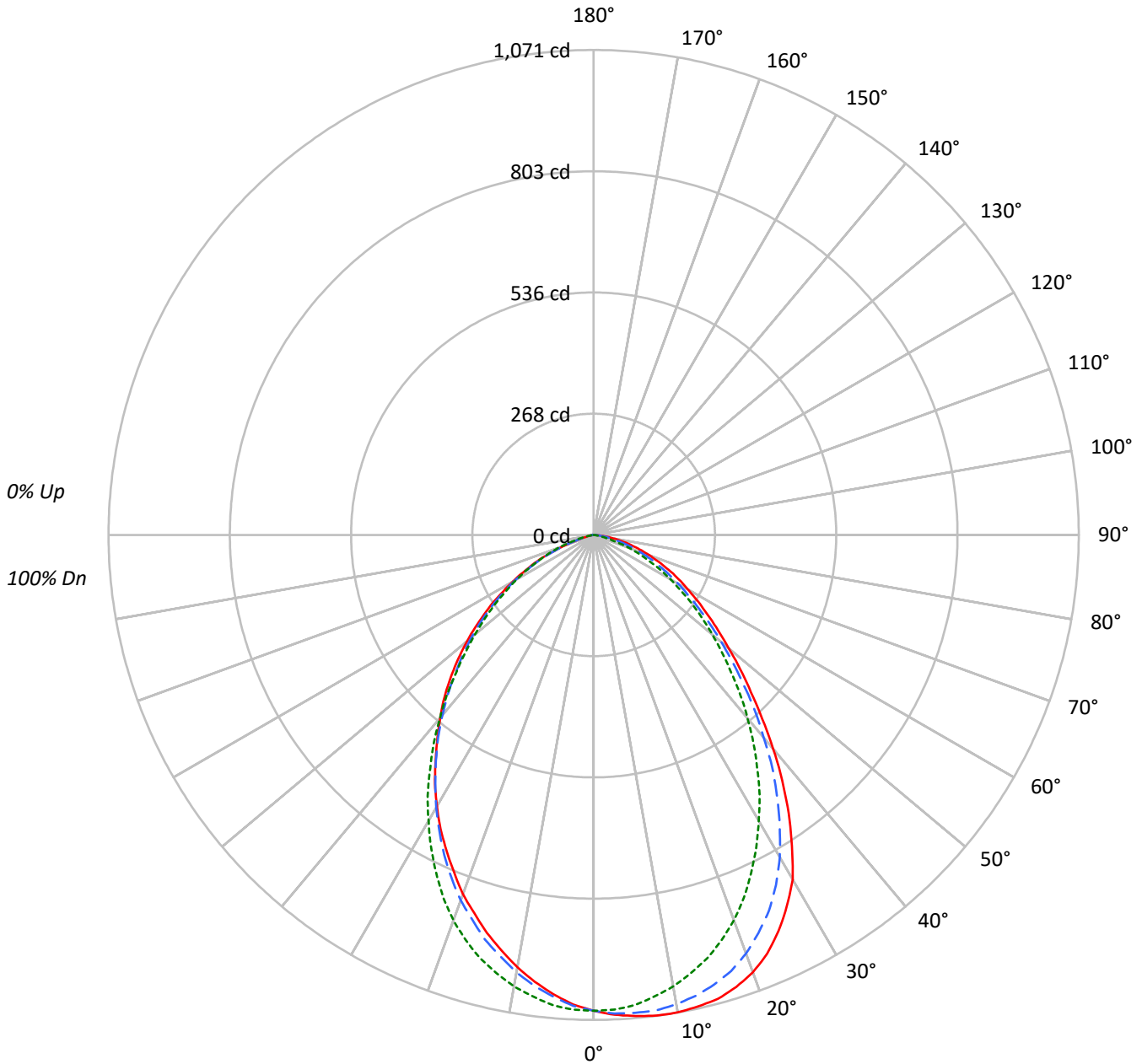
Lumens per Lamp: N/A  
Luminaire Lumens: 1970.0 lumens  
Efficiency: N/A  
Efficacy: 98.5 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.16  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

Input Watts (W): 20  
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: P593614  
CATALOG NUMBER: HCC8W20D010MB-HM80520950-81RWWH

### Luminous Intensity Polar Plot



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



TEST NUMBER: P593614

CATALOG NUMBER: HCC8W20D010MB-HM80520950-81RWWH

**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°	32406	32406	32406
5°	33013	32263	31517
10°	33529	31700	30363
15°	33865	30912	29048
20°	33737	29718	27709
25°	32850	28002	26161
30°	31284	25961	24643
35°	28252	23693	22888
40°	24817	21262	21206
45°	21421	18691	19502
50°	18652	16392	17486
55°	16537	14241	15231
60°	14752	12026	12649
65°	13302	9763	9982
70°	11811	7321	5905
75°	10187	4241	2550
80°	7831	1509	764
85°	5024	495	495



TEST NUMBER: P593614

CATALOG NUMBER: HCC8W20D010MB-HM80520950-81RWWH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.6	5.0
10°-20°	274.6	13.9
20°-30°	388.4	19.7
30°-40°	409.3	20.8
40°-50°	347.8	17.7
50°-60°	250.5	12.7
60°-70°	144.5	7.3
70°-80°	49.4	2.5
80°-90°	6.8	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°	761.7	38.7
0°-40°	1171.0	59.4
0°-60°	1769.3	89.8
0°-90°	1970.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1970.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1051	1051	1051	1051	1051	
5°	1066	1059	1042	1024	1018	102
15°	1061	1028	968	926	910	299
25°	966	916	823	780	769	443
35°	750	706	629	607	608	467
45°	491	468	429	431	447	382
55°	308	283	265	275	283	277
65°	182	157	134	131	137	181
75°	86	64	36	23	21	90
85°	14	8	1	1	1	19
90°	0	0	0	0	0	



TEST NUMBER: P593614

CATALOG NUMBER: HCC8W20D010MB-HM80520950-81RWWH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1050.9	1050.9	1050.9	1050.9	1050.9	1050.9	1050.9	1050.9	1050.9	1050.9	1050.9
2.5°	1060.8	1062.3	1060.8	1060.8	1059.4	1058.0	1056.6	1055.2	1052.3	1049.5	1049.5
5°	1066.5	1069.4	1066.5	1066.5	1062.3	1059.4	1056.6	1052.3	1046.7	1042.3	1042.3
7.5°	1070.8	1070.8	1070.8	1066.5	1063.7	1059.4	1052.3	1045.1	1038.0	1030.9	1028.1
10°	1070.8	1070.8	1069.4	1063.7	1060.8	1052.3	1045.1	1035.2	1025.3	1015.2	1012.4
12.5°	1066.5	1067.9	1065.1	1059.4	1052.3	1042.3	1032.4	1019.6	1008.1	996.8	991.1
15°	1060.8	1059.4	1056.6	1049.5	1040.9	1028.1	1018.2	1003.9	988.3	974.0	968.3
17.5°	1046.7	1046.7	1042.3	1035.2	1023.8	1009.5	993.9	978.2	961.2	945.5	938.4
20°	1028.1	1028.1	1022.4	1013.8	1002.5	983.9	966.9	948.3	928.5	912.7	905.6
22.5°	1001.0	1002.5	995.4	985.4	972.5	951.2	934.1	911.3	891.3	872.9	867.2
25°	965.5	968.3	961.2	951.2	934.1	915.6	894.3	872.9	850.1	831.5	823.0
27.5°	924.1	925.6	918.4	908.5	891.3	871.5	850.1	827.3	806.0	786.0	777.5
30°	878.6	872.9	870.1	857.2	838.7	821.6	797.4	778.9	756.1	739.0	729.1
32.5°	814.5	817.4	808.8	798.8	784.6	764.6	744.8	723.4	702.0	689.2	682.1
35°	750.5	753.3	749.0	739.0	723.4	706.2	686.4	670.7	652.2	636.5	629.4
37.5°	683.6	683.6	680.6	674.9	663.6	647.9	628.0	612.3	596.7	583.8	579.5
40°	616.5	613.7	612.3	608.0	598.1	583.8	571.0	558.1	542.5	534.0	528.2
42.5°	551.0	551.0	548.2	544.0	534.0	526.8	514.1	499.7	488.4	479.9	479.9
45°	491.2	492.7	488.4	485.6	479.9	468.4	457.1	447.2	437.1	431.4	428.6
47.5°	438.5	438.5	434.3	431.4	425.8	415.8	405.8	397.3	390.2	385.9	384.5
50°	388.8	388.8	388.8	381.7	374.5	367.4	360.3	350.3	346.0	343.1	341.7
52.5°	346.0	344.6	344.6	338.9	331.8	323.3	316.1	307.6	303.3	300.5	301.9
55°	307.6	307.6	306.1	299.0	292.0	283.3	276.2	269.1	266.3	263.5	264.9
56°	292.0	292.0	290.5	284.7	276.2	269.1	260.6	253.4	249.2	250.6	250.6
57°	280.5	277.7	277.7	270.6	263.5	253.4	246.3	239.2	236.4	235.0	235.0
58°	266.3	264.9	263.5	256.3	249.2	240.7	233.6	226.4	222.1	222.1	220.7
59°	252.0	252.0	249.2	243.5	236.4	227.9	220.7	213.6	209.3	207.9	207.9
60°	239.2	240.7	236.4	230.7	224.9	215.0	206.5	200.8	196.4	195.0	195.0
61°	227.9	227.9	224.9	217.8	210.8	203.7	195.0	187.9	185.1	182.3	182.3
62°	217.8	215.0	213.6	206.5	199.4	190.8	183.7	176.6	172.3	169.5	170.9
63°	205.1	203.7	200.8	195.0	187.9	179.4	170.9	165.1	160.9	156.6	158.0
64°	195.0	193.6	189.4	183.7	176.6	168.1	159.5	153.8	150.9	146.7	145.3
65°	182.3	180.8	179.4	172.3	165.1	156.6	149.5	143.8	139.6	136.8	133.8
66°	170.9	172.3	169.5	163.7	155.2	148.1	138.2	132.4	129.5	125.3	122.5
67°	160.9	160.9	158.0	152.4	143.8	136.8	129.5	122.5	118.2	113.9	112.5
67.5°	155.2	155.2	152.4	145.3	139.6	131.0	123.9	118.2	112.5	109.7	106.9
68°	149.5	149.5	148.1	142.4	135.2	126.7	119.6	112.5	106.9	102.5	101.1
69°	139.6	141.0	138.2	132.4	125.3	116.8	109.7	103.9	98.2	94.0	91.1
70°	131.0	129.5	126.7	121.0	113.9	108.3	101.1	94.0	88.3	82.6	81.2
71°	119.6	119.6	116.8	112.5	105.3	98.2	91.1	85.5	79.8	72.6	71.2
72°	111.1	111.1	108.3	102.5	96.8	89.7	82.6	75.4	71.2	64.1	61.2
72.5°	105.3	106.9	103.9	98.2	92.6	84.0	78.4	72.6	65.5	59.8	57.0
73°	102.5	101.1	99.6	94.0	86.9	81.2	74.0	68.3	61.2	55.6	52.7



TEST NUMBER: P593614  
 CATALOG NUMBER: HCC8W20D010MB-HM80520950-81RWWH

**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	64.1	64.1	62.6	57.0	51.3	45.6	39.8	34.2	28.5	22.8	20.0
80°	44.1	45.6	42.7	39.8	35.6	29.9	24.2	20.0	14.2	11.3	8.5
82.5°	28.5	28.5	27.1	24.2	21.4	17.1	14.2	9.9	7.1	5.7	4.3
85°	14.2	15.7	14.2	12.8	9.9	8.5	7.1	4.3	2.8	1.4	1.4
87.5°	5.7	5.7	5.7	4.3	4.3	2.8	1.4	1.4	1.4	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



TEST NUMBER: P593614

CATALOG NUMBER: HCC8W20D010MB-HM80520950-81RWWH

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1050.9	1050.9	1050.9	1050.9	1050.9	1050.9	1050.9	1050.9	1050.9	1050.9
2.5°	1046.7	1046.7	1043.7	1042.3	1040.9	1039.5	1038.0	1036.6	1036.6	1038.0
5°	1038.0	1035.2	1029.5	1028.1	1023.8	1022.4	1019.6	1018.2	1019.6	1018.2
7.5°	1025.3	1019.6	1012.4	1009.5	1003.9	1001.0	996.8	996.8	993.9	995.4
10°	1008.1	999.6	991.1	985.4	981.1	976.8	974.0	971.1	969.7	969.7
12.5°	986.9	976.8	968.3	959.8	952.6	949.7	944.1	944.1	941.2	939.8
15°	962.6	949.7	939.8	931.3	925.6	919.8	915.6	912.7	909.9	909.9
17.5°	931.3	919.8	909.9	900.0	891.3	887.1	882.8	878.6	878.6	875.7
20°	897.1	884.3	875.7	865.8	858.6	851.5	845.8	845.8	843.0	844.4
22.5°	858.6	843.0	834.5	827.3	820.2	814.5	808.8	808.8	807.4	806.0
25°	815.9	803.1	793.1	784.6	780.4	774.7	773.3	770.3	768.9	768.9
27.5°	770.3	760.4	747.6	743.4	737.6	734.7	734.7	733.3	730.5	731.9
30°	722.0	710.5	703.4	700.6	694.9	694.9	693.5	690.6	690.6	692.1
32.5°	674.9	663.6	657.9	656.5	650.7	650.7	649.3	650.7	650.7	652.2
35°	623.7	613.7	612.3	608.0	606.6	606.6	606.6	609.4	612.3	608.0
37.5°	575.3	568.2	563.9	562.5	563.9	563.9	565.4	569.6	568.2	566.8
40°	525.4	519.7	516.9	516.9	519.7	522.6	522.6	526.8	528.2	526.8
42.5°	475.6	471.4	471.4	472.8	475.6	477.1	481.3	485.6	487.0	488.4
45°	428.6	428.6	428.6	430.0	431.4	434.3	440.1	444.3	445.7	447.2
47.5°	383.1	381.7	385.9	387.3	391.6	393.0	397.3	402.9	404.4	405.8
50°	340.3	343.1	344.6	348.9	351.8	351.8	357.4	360.3	364.5	364.5
52.5°	300.5	304.7	306.1	310.4	311.8	313.2	316.1	320.4	323.3	323.3
55°	264.9	266.3	269.1	270.6	274.8	276.2	279.1	280.5	284.7	283.3
56°	249.2	252.0	253.4	256.3	259.2	260.6	263.5	264.9	267.7	269.1
57°	235.0	236.4	240.7	242.1	244.9	244.9	246.3	250.6	250.6	252.0
58°	220.7	223.5	224.9	226.4	229.3	230.7	233.6	235.0	236.4	235.0
59°	207.9	209.3	210.8	210.8	213.6	213.6	217.8	220.7	222.1	222.1
60°	195.0	195.0	196.4	198.0	200.8	202.2	202.2	205.1	205.1	205.1
61°	182.3	182.3	183.7	185.1	186.5	186.5	189.4	189.4	190.8	192.2
62°	170.9	169.5	169.5	170.9	170.9	173.8	175.2	176.6	178.0	176.6
63°	158.0	156.6	156.6	156.6	156.6	159.5	159.5	160.9	163.7	162.3
64°	143.8	143.8	143.8	143.8	145.3	145.3	148.1	149.5	150.9	152.4
65°	133.8	131.0	129.5	129.5	131.0	132.4	133.8	135.2	136.8	136.8
66°	122.5	119.6	118.2	118.2	118.2	118.2	121.0	121.0	123.9	123.9
67°	109.7	106.9	105.3	103.9	103.9	103.9	108.3	106.9	106.9	106.9
67.5°	105.3	101.1	99.6	98.2	96.8	99.6	98.2	99.6	99.6	98.2
68°	99.6	96.8	94.0	91.1	91.1	91.1	92.6	94.0	92.6	91.1
69°	88.3	86.9	82.6	79.8	78.4	79.8	78.4	79.8	78.4	79.8
70°	78.4	74.0	69.7	68.3	66.9	66.9	66.9	65.5	66.9	65.5
71°	68.3	64.1	59.8	57.0	55.6	55.6	54.1	55.6	54.1	55.6
72°	58.4	54.1	48.5	45.6	45.6	45.6	45.6	44.1	45.6	44.1
72.5°	54.1	48.5	44.1	41.3	39.8	39.8	39.8	39.8	38.4	39.8
73°	49.9	44.1	38.4	37.0	37.0	37.0	35.6	34.2	35.6	35.6





TEST NUMBER: P593614  
 CATALOG NUMBER: HCC8W20D010MB-HM80520950-81RWWH

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	17.1	12.8	11.3	11.3	11.3	11.3	11.3	11.3	9.9	9.9
80°	7.1	5.7	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
82.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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°	92.6	92.6	89.7	85.5	78.4	71.2	65.5	59.8	52.7	45.6	42.7
75°	85.5	84.0	81.2	76.9	71.2	64.1	58.4	51.3	45.6	38.4	35.6

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°	41.3	34.2	31.3	28.5	28.5	28.5	27.1	27.1	27.1	28.5
75°	32.7	27.1	24.2	21.4	22.8	21.4	22.8	21.4	21.4	21.4

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

Scaled Data Report



(END OF REPORT)