

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: P583949

Luminaire Tested: **HCC8W15D010MW-HM80520935-81WWWB**

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583949
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HCC8W15D010MW-HM80520935-81WWWB
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
CYLINDER
Ballast/Driver: ELECTRONIC DRIVER

Summary

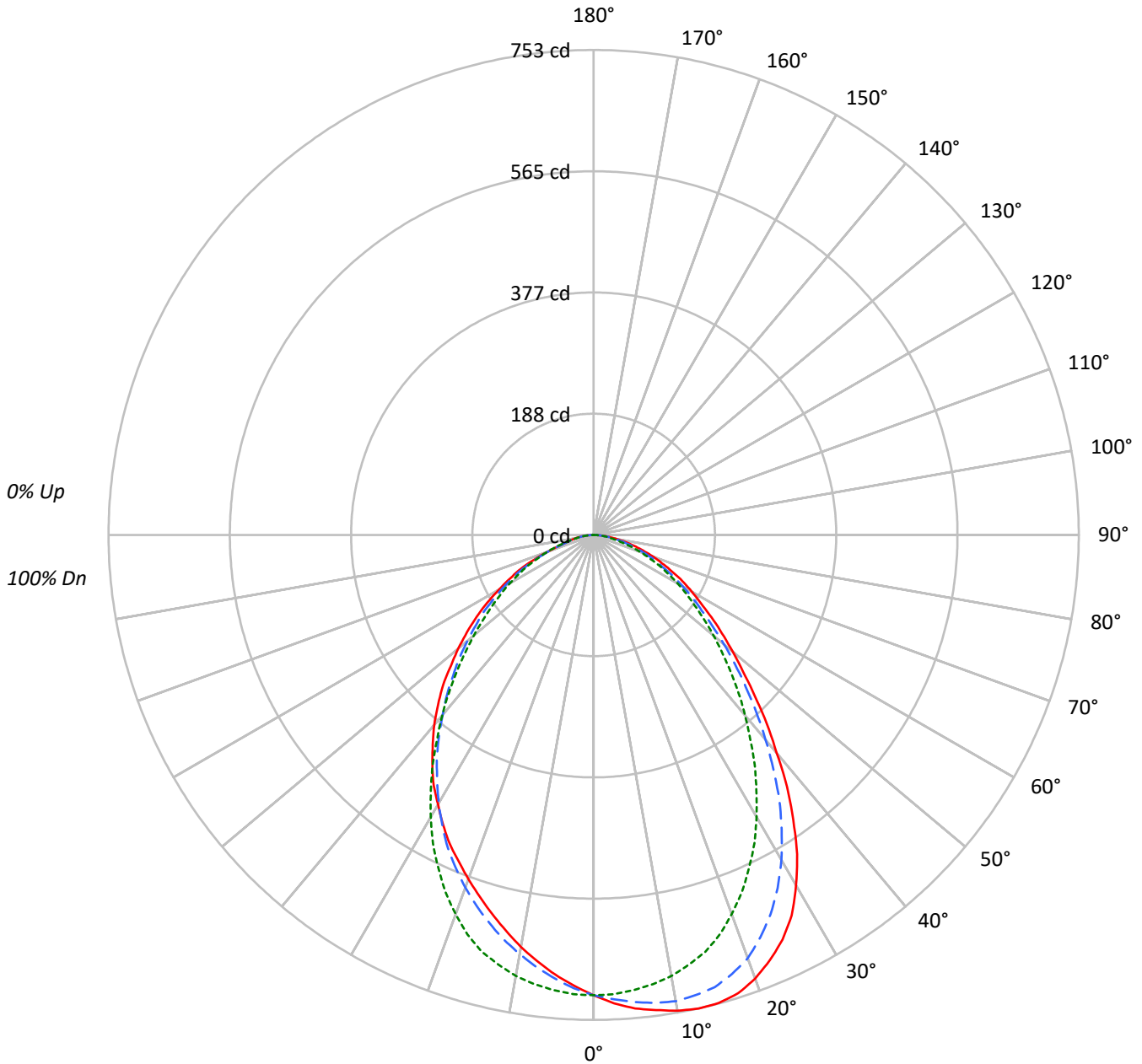
Lumens per Lamp: N/A
Luminaire Lumens: 1437.4 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.09 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): 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: P583949
CATALOG NUMBER: HCC8W15D010MW-HM80520935-81WWWB

Luminous Intensity Polar Plot



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



TEST NUMBER: P583949

CATALOG NUMBER: HCC8W15D010MW-HM80520935-81WWWB

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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77	75					75			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65					65			
4	87	76	68	62	84	75	67	61	72	66	61	70	64	60	68	63	59	57					57			
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52	50					50			
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45					45			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40					40			
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37					37			
9	61	48	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33					33			
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	22039	22039	22039
5°	22847	21965	21213
10°	23490	21774	20343
15°	24017	21389	19445
20°	24054	20556	18656
25°	23592	19414	17995
30°	22375	18003	17205
35°	20332	16394	16435
40°	17776	14713	15490
45°	15407	13105	14430
50°	13490	11643	13149
55°	12005	10311	11903
60°	10830	9269	10454
65°	9777	8150	9106
70°	8791	6870	6771
75°	7732	5445	5087
80°	6482	4511	4866
85°	5024	3963	4316



TEST NUMBER: P583949

CATALOG NUMBER: HCC8W15D010MW-HM80520935-81WWWB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.4	4.7
10°-20°	189.9	13.2
20°-30°	271.4	18.9
30°-40°	288.4	20.1
40°-50°	248.3	17.3
50°-60°	185.6	12.9
60°-70°	118.4	8.2
70°-80°	53.9	3.7
80°-90°	14.2	1.0
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°	528.7	36.8
0°-40°	817.1	56.8
0°-60°	1251.0	87.0
0°-90°	1437.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1437.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	715	715	715	715	715	
5°	738	728	710	691	685	71
15°	752	727	670	624	609	212
25°	693	650	571	536	529	317
35°	540	502	436	424	437	336
45°	353	334	300	309	331	275
55°	223	205	192	208	221	201
65°	134	119	112	117	125	134
75°	65	56	46	42	43	69
85°	14	12	11	12	12	17
90°	0	0	0	0	0	

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



TEST NUMBER: P583949

CATALOG NUMBER: HCC8W15D010MW-HM80520935-81WWWB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7
2.5°	727.9	725.9	726.9	725.9	726.9	726.9	724.8	724.8	724.8	724.8	721.8
5°	738.1	737.0	737.0	736.0	735.1	736.0	735.1	734.0	731.9	731.0	727.9
7.5°	744.1	744.1	744.1	744.1	743.1	742.0	741.1	739.0	737.0	735.1	733.0
10°	750.2	751.2	750.2	749.1	748.2	746.1	745.2	743.1	740.1	737.0	735.1
12.5°	753.2	753.2	752.3	752.3	750.2	749.1	746.1	743.1	740.1	737.0	731.9
15°	752.3	752.3	751.2	750.2	747.2	746.1	744.1	741.1	736.0	731.9	726.9
17.5°	746.1	745.2	743.1	743.1	739.0	738.1	736.0	731.9	726.9	720.8	714.7
20°	733.0	733.0	731.9	731.0	726.9	723.8	721.8	716.7	712.6	705.5	699.5
22.5°	714.7	716.7	714.7	712.6	707.6	706.6	703.5	697.5	691.3	683.2	676.1
25°	693.4	692.4	691.3	689.3	685.3	683.2	679.1	673.1	667.0	657.8	649.7
27.5°	666.0	661.9	661.9	657.8	654.8	651.8	649.7	643.6	635.5	628.4	618.3
30°	628.4	629.4	624.3	623.3	618.3	616.2	612.1	606.1	599.0	590.8	582.7
32.5°	587.8	584.8	584.8	580.7	576.6	573.6	572.6	565.5	559.4	551.3	543.1
35°	540.1	540.1	537.1	536.0	532.0	530.0	526.8	522.8	515.7	508.6	502.5
37.5°	493.3	491.4	490.3	488.3	485.3	482.2	482.2	475.1	474.0	466.0	457.9
40°	441.6	443.7	441.6	438.5	437.5	435.5	434.5	430.4	427.4	420.3	415.2
42.5°	398.0	396.0	396.0	394.9	390.9	390.9	388.9	386.8	381.7	379.7	373.6
45°	353.3	355.4	352.2	353.3	349.2	349.2	349.2	345.1	341.1	338.0	334.0
47.5°	314.7	315.7	315.7	312.7	311.6	311.6	309.7	307.6	304.5	300.5	297.4
50°	281.2	282.2	280.2	279.2	277.2	276.2	276.2	272.1	270.0	265.9	263.9
52.5°	250.8	250.8	249.7	249.7	246.7	246.7	244.6	241.6	239.6	237.5	232.4
55°	223.3	223.3	222.3	221.4	221.4	218.2	217.3	214.2	212.2	208.1	205.1
57.5°	196.9	198.0	196.9	195.9	195.0	193.9	191.8	188.8	186.8	183.8	181.7
60°	175.6	175.6	174.6	173.6	171.6	170.5	169.5	167.5	164.5	162.4	159.4
62.5°	155.3	154.4	153.3	152.3	150.3	150.3	148.2	146.2	143.2	141.1	139.1
65°	134.0	134.0	133.0	133.0	131.9	129.9	128.9	128.0	123.9	122.8	118.8
67.5°	114.7	115.7	113.8	113.8	111.7	111.7	110.6	107.6	106.6	104.6	102.5
70°	97.5	97.5	97.5	96.4	94.5	93.4	92.4	90.4	89.3	87.4	85.3
72.5°	80.3	80.3	79.2	79.2	78.2	77.1	76.2	74.1	74.1	72.1	70.0
75°	64.9	64.9	64.0	62.9	61.9	61.9	60.9	59.9	57.8	56.9	55.8
77.5°	49.8	49.8	49.8	48.7	47.7	47.7	47.7	45.7	43.6	43.6	42.7
80°	36.5	36.5	35.5	35.5	34.5	34.5	34.5	33.5	32.5	31.5	30.5
82.5°	24.3	24.3	24.3	24.3	23.4	23.4	23.4	22.3	21.3	21.3	21.3
85°	14.2	14.2	14.2	14.2	13.3	13.3	13.3	13.3	13.3	12.2	12.2
87.5°	6.1	5.1	6.1	5.1	6.1	5.1	6.1	5.1	5.1	5.1	5.1
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: P583949

CATALOG NUMBER: HCC8W15D010MW-HM80520935-81WWWB

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7
2.5°	722.8	721.8	720.8	719.7	719.7	718.8	716.7	715.6	714.7	713.7	713.7
5°	726.9	725.9	723.8	721.8	720.8	718.8	716.7	714.7	712.6	709.6	708.5
7.5°	729.9	726.9	724.8	720.8	719.7	717.7	714.7	711.7	707.6	703.5	700.5
10°	729.9	725.9	722.8	717.7	715.6	713.7	709.6	704.6	699.5	695.4	690.3
12.5°	727.9	722.8	717.7	712.6	709.6	706.6	700.5	695.4	689.3	683.2	679.1
15°	720.8	714.7	708.5	702.5	699.5	695.4	689.3	682.2	676.1	670.0	662.9
17.5°	707.6	701.6	694.4	687.3	683.2	680.2	671.1	666.0	656.8	650.7	644.7
20°	690.3	683.2	674.1	667.0	661.9	658.9	651.8	642.6	635.5	626.4	620.3
22.5°	667.9	658.9	649.7	642.6	637.6	633.5	624.3	615.2	609.1	600.9	593.8
25°	641.5	632.5	623.3	613.2	608.0	604.1	595.9	587.8	579.7	570.6	564.4
27.5°	610.1	600.0	591.9	582.7	577.7	571.5	562.4	554.3	546.2	540.1	532.0
30°	575.6	564.4	556.3	547.2	542.1	537.1	527.9	519.7	512.6	505.6	501.5
32.5°	533.9	525.9	517.8	508.6	504.5	501.5	492.4	484.3	476.1	470.1	466.9
35°	494.4	485.3	478.1	470.1	465.0	461.9	453.8	446.7	442.6	435.5	431.5
37.5°	452.7	445.6	437.5	429.5	426.3	423.3	417.3	410.2	404.0	399.0	396.9
40°	409.1	403.1	396.0	390.9	387.8	384.8	379.7	374.6	370.5	365.5	363.4
42.5°	367.5	363.4	357.4	351.3	348.2	347.2	341.1	337.0	335.0	332.9	330.9
45°	329.9	323.8	319.8	315.7	312.7	310.6	307.6	304.5	302.6	300.5	298.5
47.5°	293.4	288.4	284.3	281.2	278.1	277.2	275.1	272.1	270.0	270.0	270.0
50°	259.9	255.8	251.7	249.7	248.7	246.7	244.6	243.7	242.7	242.7	242.7
52.5°	230.4	226.4	223.3	221.4	221.4	219.3	217.3	216.2	216.2	216.2	216.2
55°	203.0	200.0	198.0	195.9	193.9	192.9	192.9	192.9	191.8	191.8	192.9
57.5°	178.7	176.7	173.6	171.6	170.5	170.5	169.5	168.6	169.5	170.5	171.6
60°	156.3	154.4	153.3	150.3	150.3	150.3	149.2	149.2	149.2	150.3	151.2
62.5°	136.0	135.0	133.0	131.9	131.0	131.0	129.9	129.9	129.9	129.9	131.0
65°	117.7	115.7	113.8	113.8	113.8	112.7	112.7	110.6	111.7	111.7	110.6
67.5°	100.5	98.4	97.5	96.4	95.4	95.4	94.5	93.4	92.4	92.4	92.4
70°	84.2	82.2	82.2	80.3	80.3	79.2	78.2	78.2	77.1	76.2	75.1
72.5°	68.0	67.0	66.0	64.9	64.9	64.9	64.0	62.9	61.9	60.9	58.9
75°	53.9	53.9	51.8	50.7	50.7	49.8	48.7	47.7	46.8	45.7	44.7
77.5°	41.6	40.6	38.6	37.6	37.6	37.6	36.5	35.5	34.5	33.5	32.5
80°	30.5	29.4	28.4	27.4	27.4	27.4	26.4	26.4	25.4	25.4	25.4
82.5°	20.2	20.2	19.3	19.3	19.3	19.3	18.3	18.3	18.3	18.3	18.3
85°	12.2	12.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
87.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
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: P583949

CATALOG NUMBER: HCC8W15D010MW-HM80520935-81WWWB

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7
2.5°	711.7	711.7	709.6	708.5	707.6	708.5	706.6	705.5	704.6	704.6	703.5
5°	705.5	704.6	700.5	699.5	698.4	697.5	695.4	693.4	691.3	690.3	689.3
7.5°	697.5	694.4	690.3	689.3	688.3	685.3	682.2	680.2	677.1	676.1	674.1
10°	686.2	682.2	679.1	676.1	674.1	671.1	667.9	664.9	660.9	659.9	656.8
12.5°	673.1	667.9	661.9	660.9	657.8	653.8	649.7	646.7	643.6	641.5	638.5
15°	656.8	651.8	645.6	642.6	639.6	636.5	631.4	627.3	624.3	621.3	618.3
17.5°	637.6	631.4	626.4	623.3	621.3	616.2	612.1	607.1	604.1	600.9	597.9
20°	614.2	609.1	602.0	599.0	597.9	593.8	588.8	586.8	582.7	579.7	577.7
22.5°	587.8	582.7	576.6	574.5	570.6	568.5	563.5	561.4	559.4	556.3	555.3
25°	558.4	553.2	548.2	547.2	544.2	542.1	539.1	536.0	536.0	533.0	533.0
27.5°	527.9	522.8	518.8	516.7	515.7	513.7	510.7	509.6	508.6	507.5	507.5
30°	495.4	489.4	487.3	486.2	485.3	483.2	482.2	480.2	481.2	482.2	481.2
32.5°	460.9	458.9	454.8	452.7	453.8	452.7	450.8	452.7	451.8	453.8	454.8
35°	427.4	425.4	423.3	423.3	421.3	421.3	421.3	422.4	424.4	425.4	427.4
37.5°	394.9	391.9	390.9	389.8	390.9	390.9	390.9	392.8	394.9	396.9	399.9
40°	360.4	358.4	358.4	358.4	358.4	361.4	360.4	362.5	364.4	367.5	370.5
42.5°	327.9	327.9	329.0	329.0	329.0	329.0	330.9	334.0	337.0	340.1	343.2
45°	297.4	297.4	297.4	299.4	299.4	300.5	304.5	306.6	308.6	311.6	314.7
47.5°	269.1	269.1	270.0	271.0	272.1	274.1	276.2	279.2	282.2	284.3	287.3
50°	242.7	243.7	245.7	247.7	247.7	248.7	251.7	253.8	255.8	258.8	259.9
52.5°	217.3	219.3	221.4	222.3	223.3	225.3	226.4	229.4	230.4	233.5	234.5
55°	193.9	195.0	198.0	198.9	198.9	201.0	203.0	205.1	208.1	208.1	210.2
57.5°	172.6	173.6	175.6	176.7	175.6	178.7	179.7	181.7	182.7	184.7	185.8
60°	151.2	153.3	154.4	154.4	155.3	156.3	158.3	158.3	160.4	162.4	162.4
62.5°	131.0	131.9	133.0	134.0	135.0	134.0	137.0	137.0	139.1	140.1	142.1
65°	111.7	112.7	112.7	113.8	113.8	114.7	114.7	115.7	116.8	118.8	119.8
67.5°	92.4	92.4	92.4	93.4	92.4	93.4	93.4	94.5	94.5	96.4	97.5
70°	75.1	74.1	73.1	73.1	73.1	73.1	72.1	73.1	73.1	74.1	74.1
72.5°	57.8	56.9	55.8	54.8	54.8	53.9	52.8	53.9	53.9	54.8	54.8
75°	43.6	41.6	41.6	41.6	40.6	40.6	40.6	41.6	41.6	41.6	42.7
77.5°	32.5	32.5	31.5	31.5	31.5	32.5	32.5	33.5	33.5	33.5	33.5
80°	24.3	25.4	25.4	25.4	25.4	26.4	26.4	26.4	26.4	27.4	27.4
82.5°	18.3	18.3	18.3	18.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
85°	11.2	12.2	12.2	11.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
87.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
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: P583949

CATALOG NUMBER: HCC8W15D010MW-HM80520935-81WWWB

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	714.7	714.7	714.7	714.7	714.7	714.7	714.7	714.7
2.5°	702.5	702.5	702.5	702.5	701.6	701.6	701.6	700.5
5°	687.3	687.3	687.3	685.3	686.2	686.2	684.2	685.3
7.5°	672.0	671.1	670.0	670.0	669.0	667.9	667.0	667.9
10°	654.8	651.8	651.8	650.7	650.7	648.7	648.7	649.7
12.5°	635.5	633.5	633.5	632.5	631.4	630.5	629.4	629.4
15°	616.2	614.2	613.2	612.1	611.2	609.1	610.1	609.1
17.5°	597.0	593.8	593.8	592.9	591.9	589.8	589.8	588.8
20°	574.5	573.6	571.5	572.6	571.5	569.5	568.5	568.5
22.5°	552.3	552.3	551.3	551.3	550.2	549.2	548.2	548.2
25°	530.9	530.0	530.9	530.9	527.9	527.9	527.9	528.9
27.5°	506.6	507.5	506.6	506.6	506.6	506.6	507.5	506.6
30°	482.2	482.2	482.2	483.2	485.3	484.3	484.3	483.2
32.5°	455.9	456.8	456.8	457.9	458.9	460.9	460.9	461.9
35°	429.5	431.5	432.5	431.5	434.5	434.5	436.6	436.6
37.5°	402.0	403.1	405.0	406.1	408.1	409.1	410.2	410.2
40°	372.6	376.7	377.6	378.6	381.7	381.7	382.7	384.8
42.5°	345.1	349.2	350.3	351.3	353.3	356.3	355.4	357.4
45°	318.7	321.9	322.8	323.8	326.9	327.9	327.9	330.9
47.5°	290.3	292.3	293.4	295.5	297.4	299.4	301.5	300.5
50°	262.0	265.0	267.0	268.0	271.0	272.1	273.1	274.1
52.5°	236.5	238.6	239.6	240.6	243.7	244.6	245.7	247.7
55°	212.2	213.2	215.2	214.2	217.3	218.2	219.3	221.4
57.5°	187.9	188.8	189.8	189.8	191.8	193.9	195.0	195.9
60°	164.5	166.5	167.5	167.5	167.5	169.5	169.5	169.5
62.5°	143.2	143.2	144.1	144.1	146.2	146.2	146.2	146.2
65°	120.9	121.8	122.8	122.8	124.8	123.9	125.9	124.8
67.5°	97.5	97.5	99.5	99.5	98.4	99.5	99.5	99.5
70°	74.1	74.1	75.1	75.1	75.1	75.1	75.1	75.1
72.5°	54.8	54.8	54.8	55.8	54.8	54.8	55.8	54.8
75°	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7
77.5°	33.5	33.5	34.5	34.5	34.5	34.5	34.5	34.5
80°	27.4	27.4	27.4	27.4	28.4	27.4	27.4	27.4
82.5°	20.2	19.3	20.2	19.3	20.2	20.2	20.2	20.2
85°	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
87.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
90°	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



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



(END OF REPORT)