

Scaled data based on original data using  
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 COMMERCIAL

Report Number: P210411

Luminaire Tested: **PR8R15D010 - PR8M12WW - 4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P210411  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29047)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PR8R15D010 - PR8M12WW - 4000K  
Description: HALO 8" ROUND DOWNLIGHT, WALLWASH, MATTE WHITE FINISH  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1439.7 lumens  
Efficiency: N/A  
Efficacy: 96.0 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.19 / 1.17  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

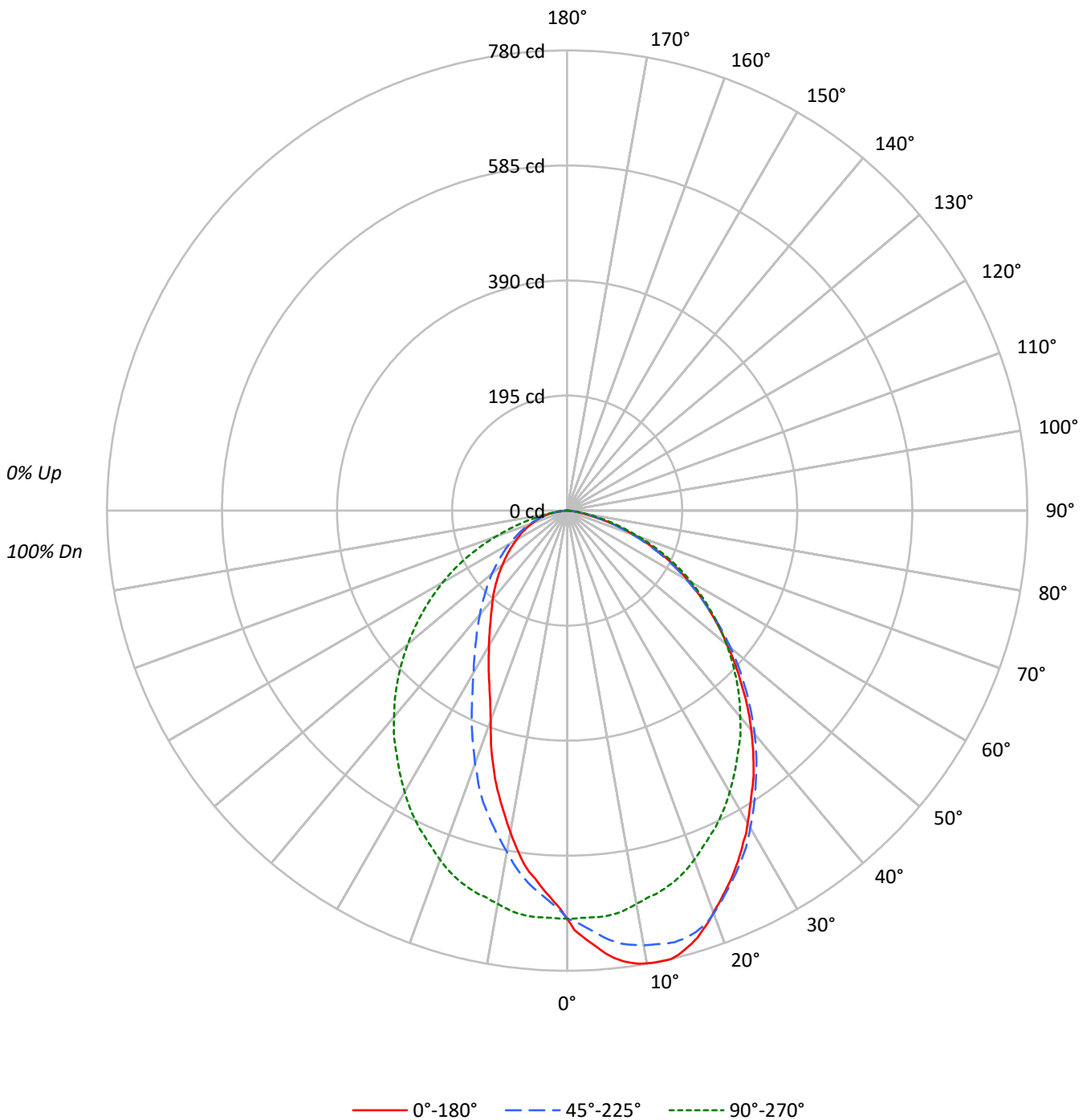
Input Watts (W): 15  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**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	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88					86				
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76					74				
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	73	69	66					63				
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57					55				
5	79	67	59	52	77	66	58	52	64	57	52	62	56	51	60	55	50					48				
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	55	49	45					43				
7	68	55	47	41	67	55	47	41	53	46	41	52	45	41	50	45	40					38				
8	64	51	43	37	62	50	43	37	49	42	37	48	41	37	47	41	37					35				
9	60	47	39	34	58	46	39	34	45	38	34	44	38	33	43	37	33					32				
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	30					29				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	21326	21326	21326
5°	23336	21386	19371
10°	24395	21195	17337
15°	24604	21051	15039
20°	23798	20674	12450
25°	22864	20197	10670
30°	21784	19616	9446
35°	20738	18973	8511
40°	19555	18372	7890
45°	18255	17705	7357
50°	16992	16925	6851
55°	15806	16032	6473
60°	14592	15023	6130
65°	13024	13688	5925
70°	10855	11613	5680
75°	7756	8924	5504
80°	4599	5842	5221
85°	2477	2229	2477



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.1	4.5
10°-20°	179.3	12.5
20°-30°	247.4	17.2
30°-40°	270.2	18.8
40°-50°	254.1	17.6
50°-60°	207.3	14.4
60°-70°	140.9	9.8
70°-80°	64.8	4.5
80°-90°	10.7	0.7
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°	491.7	34.2
0°-40°	761.9	52.9
0°-60°	1223.3	85.0
0°-90°	1439.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1439.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	692	692	692	692	692	
5°	754	727	691	643	626	73
15°	771	752	659	527	471	216
25°	672	678	594	383	314	309
35°	551	558	504	270	226	344
45°	419	428	406	196	169	323
55°	294	295	298	138	120	263
65°	178	174	188	90	81	176
75°	65	67	75	48	46	71
85°	7	6	6	7	7	10
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°
0°	691.6	691.6	691.6	691.6	691.6	691.6	691.6	691.6	691.6
1°	711.2	703.5	695.8	693.7	691.6	681.1	677.6	678.3	674.8
2°	721.7	713.3	702.8	697.2	690.9	676.2	668.5	667.1	662.2
3°	732.2	723.8	710.5	700.7	690.9	671.3	659.4	655.2	650.3
4°	742.7	735.0	718.2	705.6	690.9	667.1	651.0	644.0	638.4
5°	753.9	744.1	726.6	709.8	690.9	662.9	643.3	632.1	625.8
6°	762.3	753.2	733.6	713.3	689.5	657.3	634.2	620.2	616.0
7°	769.3	760.2	739.2	715.4	688.1	651.7	623.7	607.6	602.7
8°	774.2	765.8	742.7	716.1	685.3	644.0	613.2	592.9	586.6
9°	777.7	769.3	745.5	716.8	681.1	635.6	600.6	578.2	570.5
10°	779.1	772.1	748.3	716.8	676.9	627.9	587.3	562.1	553.7
11°	780.5	774.2	749.7	716.8	673.4	620.2	575.4	546.7	536.9
12°	780.5	774.2	751.1	716.8	669.2	611.8	563.5	531.3	520.1
13°	780.5	774.9	753.2	717.5	667.1	605.5	551.6	516.6	504.0
14°	776.3	774.2	753.9	717.5	663.6	597.1	539.7	500.5	487.9
15°	770.7	770.0	752.5	716.8	659.4	588.7	527.1	484.4	471.1
16°	764.4	763.0	750.4	716.1	655.2	580.3	515.2	468.3	452.9
17°	756.7	756.0	746.9	713.3	649.6	571.2	501.2	450.8	435.4
18°	746.2	747.6	742.0	709.8	644.0	562.1	487.2	433.3	417.2
19°	737.1	737.8	735.0	704.2	637.0	550.2	470.4	415.8	397.6
20°	725.2	727.3	726.6	700.0	630.0	539.0	456.4	397.6	379.4
21°	714.7	716.8	716.8	694.4	622.3	528.5	441.0	380.1	363.3
22°	704.2	706.3	707.0	688.8	614.6	518.0	426.3	364.7	348.6
23°	693.7	695.8	697.2	683.2	607.6	507.5	411.6	350.0	336.0
24°	683.2	685.3	687.4	676.2	599.9	496.3	397.6	337.4	324.1
25°	672.0	674.8	677.6	670.6	593.6	486.5	382.9	325.5	313.6
26°	660.8	663.6	667.1	663.6	585.2	474.6	368.2	314.3	303.1
27°	648.9	652.4	656.6	655.9	577.5	464.1	354.2	303.8	292.6
28°	636.3	640.5	646.1	648.2	569.1	452.9	340.9	293.3	283.5
29°	625.8	627.9	633.5	639.1	560.0	441.0	329.0	283.5	273.7
30°	611.8	615.3	620.9	628.6	550.9	429.8	317.1	274.4	265.3
32.5°	579.6	583.8	590.1	604.1	527.8	401.1	291.9	253.4	244.3
35°	550.9	551.6	557.9	574.7	504.0	372.4	269.5	233.1	226.1
37.5°	518.0	521.5	527.1	548.1	482.3	344.4	249.2	216.3	210.0
40°	485.8	488.6	494.2	514.5	456.4	316.4	230.3	201.6	196.0
42.5°	452.9	455.7	461.3	484.4	431.9	288.4	212.1	187.6	182.7
45°	418.6	421.4	427.7	451.5	406.0	262.5	196.0	173.6	168.7
47.5°	386.4	387.1	394.8	418.6	379.4	240.1	180.6	160.3	156.1
50°	354.2	354.9	361.9	385.7	352.8	217.7	166.6	146.3	142.8
52.5°	324.1	324.1	328.3	352.1	325.5	197.4	151.2	133.7	131.6
55°	294.0	293.3	294.7	318.5	298.2	179.2	137.9	122.5	120.4
57.5°	265.3	263.2	263.9	285.6	270.9	161.0	125.3	112.0	109.9
60°	236.6	235.2	232.4	253.4	243.6	142.1	112.7	101.5	99.4
62.5°	207.9	206.5	204.4	221.2	216.3	126.0	100.8	91.7	90.3
65°	178.5	178.5	174.3	188.3	187.6	109.9	89.6	81.9	81.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	149.1	147.7	144.9	156.1	158.2	94.5	78.4	72.1	72.1
70°	120.4	120.4	116.2	123.9	128.8	79.8	67.9	63.7	63.0
72.5°	92.4	93.1	90.3	95.9	101.5	65.1	57.4	55.3	54.6
75°	65.1	67.9	67.2	71.4	74.9	51.1	47.6	46.2	46.2
77.5°	39.9	44.1	46.2	49.7	51.8	38.5	37.8	37.8	37.8
80°	25.9	26.6	28.0	31.5	32.9	26.6	27.3	28.7	29.4
82.5°	14.7	14.7	15.4	16.8	18.2	16.1	17.5	18.9	18.9
85°	7.0	6.3	6.3	6.3	6.3	7.0	7.0	7.7	7.0
87.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)