

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: P210604

Luminaire Tested: **PR8S20D010 - PR8M12WW - 3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P210604  
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: PR8S20D010 - PR8M12WW - 3000K  
Description: HALO 8" ROUND DOWNLIGHT, WALLWASH, MATTE WHITE FINISH  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1562.1 lumens  
Efficiency: N/A  
Efficacy: 71.0 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

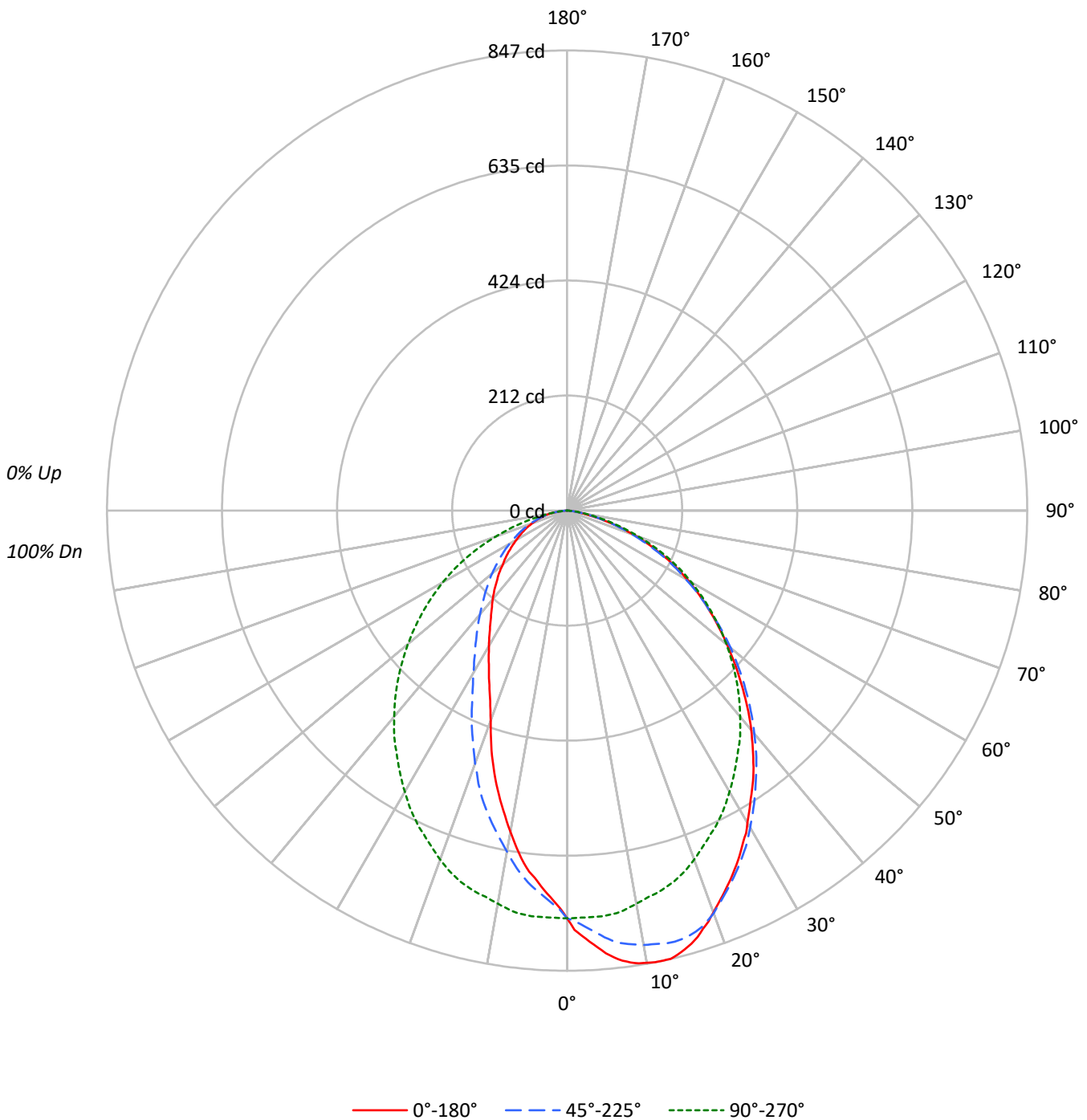
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	23140	23140	23140
5°	25320	23203	21018
10°	26468	22999	18812
15°	26695	22842	16320
20°	25822	22433	13510
25°	24807	21915	11578
30°	23636	21282	10251
35°	22500	20588	9234
40°	21218	19934	8562
45°	19807	19210	7980
50°	18436	18364	7431
55°	17150	17397	7021
60°	15831	16300	6654
65°	14133	14856	6428
70°	11775	12604	6167
75°	8411	9686	5969
80°	4990	6340	5665
85°	2689	2406	2689



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.6	4.5
10°-20°	194.5	12.5
20°-30°	268.4	17.2
30°-40°	293.2	18.8
40°-50°	275.7	17.6
50°-60°	224.9	14.4
60°-70°	152.9	9.8
70°-80°	70.3	4.5
80°-90°	11.6	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°	533.5	34.2
0°-40°	826.7	52.9
0°-60°	1327.3	85.0
0°-90°	1562.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1562.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	750	750	750	750	750	
5°	818	788	750	698	679	79
15°	836	816	716	572	511	234
25°	729	735	644	416	340	335
35°	598	605	547	292	245	373
45°	454	464	440	213	183	351
55°	319	320	324	150	131	286
65°	194	189	204	97	88	191
75°	71	73	81	52	50	77
85°	8	7	7	8	8	11
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°	750.4	750.4	750.4	750.4	750.4	750.4	750.4	750.4	750.4
1°	771.7	763.3	755.0	752.7	750.4	739.0	735.2	736.0	732.2
2°	783.1	773.9	762.6	756.5	749.6	733.7	725.3	723.8	718.5
3°	794.5	785.3	770.9	760.3	749.6	728.4	715.5	710.9	705.6
4°	805.8	797.5	779.3	765.6	749.6	723.8	706.4	698.8	692.7
5°	818.0	807.4	788.4	770.2	749.6	719.3	698.0	685.8	679.0
6°	827.1	817.2	796.0	773.9	748.1	713.2	688.1	672.9	668.4
7°	834.7	824.8	802.1	776.2	746.6	707.1	676.7	659.3	653.9
8°	840.0	830.9	805.8	777.0	743.6	698.8	665.3	643.3	636.5
9°	843.8	834.7	808.9	777.7	739.0	689.6	651.7	627.4	619.0
10°	845.3	837.7	811.9	777.7	734.5	681.3	637.2	609.9	600.8
11°	846.9	840.0	813.4	777.7	730.7	672.9	624.3	593.2	582.6
12°	846.9	840.0	815.0	777.7	726.1	663.8	611.4	576.5	564.3
13°	846.9	840.8	817.2	778.5	723.8	657.0	598.5	560.5	546.9
14°	842.3	840.0	818.0	778.5	720.0	647.9	585.6	543.1	529.4
15°	836.2	835.5	816.5	777.7	715.5	638.8	571.9	525.6	511.2
16°	829.4	827.9	814.2	777.0	710.9	629.6	559.0	508.1	491.4
17°	821.0	820.3	810.4	773.9	704.8	619.8	543.8	489.1	472.4
18°	809.6	811.2	805.1	770.2	698.8	609.9	528.6	470.1	452.7
19°	799.8	800.5	797.5	764.1	691.2	597.0	510.4	451.2	431.4
20°	786.9	789.1	788.4	759.5	683.6	584.8	495.2	431.4	411.7
21°	775.5	777.7	777.7	753.4	675.2	573.4	478.5	412.4	394.2
22°	764.1	766.4	767.1	747.4	666.9	562.0	462.5	395.7	378.2
23°	752.7	755.0	756.5	741.3	659.3	550.7	446.6	379.8	364.6
24°	741.3	743.6	745.8	733.7	650.9	538.5	431.4	366.1	351.7
25°	729.1	732.2	735.2	727.6	644.1	527.9	415.5	353.2	340.3
26°	717.0	720.0	723.8	720.0	635.0	515.0	399.5	341.0	328.9
27°	704.1	707.9	712.4	711.7	626.6	503.6	384.3	329.6	317.5
28°	690.4	695.0	701.0	703.3	617.5	491.4	369.9	318.2	307.6
29°	679.0	681.3	687.4	693.4	607.6	478.5	357.0	307.6	297.0
30°	663.8	667.6	673.7	682.0	597.7	466.3	344.1	297.7	287.9
32.5°	628.9	633.4	640.3	655.5	572.7	435.2	316.7	274.9	265.1
35°	597.7	598.5	605.3	623.6	546.9	404.1	292.4	252.9	245.3
37.5°	562.0	565.8	571.9	594.7	523.3	373.7	270.4	234.7	227.9
40°	527.1	530.1	536.2	558.2	495.2	343.3	249.9	218.7	212.7
42.5°	491.4	494.4	500.5	525.6	468.6	312.9	230.1	203.6	198.2
45°	454.2	457.2	464.1	489.9	440.5	284.8	212.7	188.4	183.0
47.5°	419.3	420.0	428.4	454.2	411.7	260.5	196.0	173.9	169.4
50°	384.3	385.1	392.7	418.5	382.8	236.2	180.8	158.7	154.9
52.5°	351.7	351.7	356.2	382.0	353.2	214.2	164.1	145.1	142.8
55°	319.0	318.2	319.8	345.6	323.6	194.4	149.6	132.9	130.6
57.5°	287.9	285.6	286.3	309.9	293.9	174.7	136.0	121.5	119.2
60°	256.7	255.2	252.2	274.9	264.3	154.2	122.3	110.1	107.9
62.5°	225.6	224.1	221.8	240.0	234.7	136.7	109.4	99.5	98.0
65°	193.7	193.7	189.1	204.3	203.6	119.2	97.2	88.9	88.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	161.8	160.3	157.2	169.4	171.7	102.5	85.1	78.2	78.2
70°	130.6	130.6	126.1	134.4	139.8	86.6	73.7	69.1	68.4
72.5°	100.3	101.0	98.0	104.1	110.1	70.6	62.3	60.0	59.2
75°	70.6	73.7	72.9	77.5	81.3	55.4	51.6	50.1	50.1
77.5°	43.3	47.8	50.1	53.9	56.2	41.8	41.0	41.0	41.0
80°	28.1	28.9	30.4	34.2	35.7	28.9	29.6	31.1	31.9
82.5°	15.9	15.9	16.7	18.2	19.7	17.5	19.0	20.5	20.5
85°	7.6	6.8	6.8	6.8	6.8	7.6	7.6	8.4	7.6
87.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)