

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: P210606

Luminaire Tested: **PR8S20D010 - PR8M12WW - 4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P210606  
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 - 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: 1666.7 lumens  
Efficiency: N/A  
Efficacy: 75.8 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

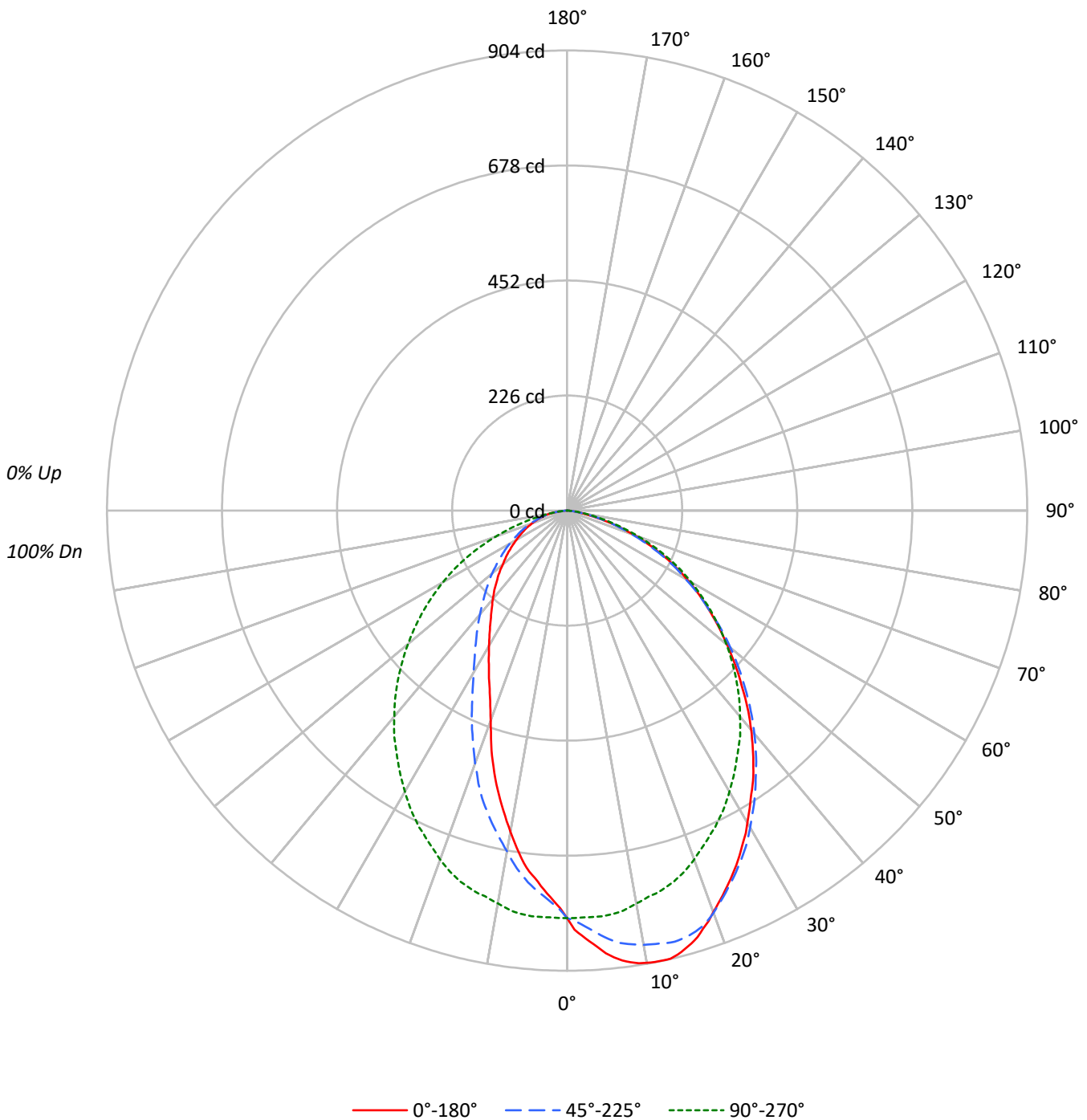
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P210606

CATALOG NUMBER: PR8S20D010 - PR8M12WW - 4000K

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

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

	0°	90°	180°
0°	24691	24691	24691
5°	27017	24760	22426
10°	28243	24539	20071
15°	28483	24371	17411
20°	27552	23935	14412
25°	26471	23381	12354
30°	25220	22710	10935
35°	24009	21965	9855
40°	22639	21270	9134
45°	21133	20496	8517
50°	19674	19592	7930
55°	18300	18558	7494
60°	16892	17392	7099
65°	15082	15848	6859
70°	12568	13443	6573
75°	8983	10330	6374
80°	5327	6766	6038
85°	2866	2583	2866



TEST NUMBER: P210606

CATALOG NUMBER: PR8S20D010 - PR8M12WW - 4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.4	4.5
10°-20°	207.5	12.5
20°-30°	286.4	17.2
30°-40°	312.8	18.8
40°-50°	294.1	17.6
50°-60°	240.0	14.4
60°-70°	163.1	9.8
70°-80°	75.1	4.5
80°-90°	12.3	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°	569.3	34.2
0°-40°	882.1	52.9
0°-60°	1416.2	85.0
0°-90°	1666.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1666.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	801	801	801	801	801	
5°	873	841	800	745	724	84
15°	892	871	763	610	545	250
25°	778	784	687	443	363	358
35°	638	646	584	312	262	398
45°	485	495	470	227	195	374
55°	340	341	345	160	139	305
65°	207	202	217	104	94	204
75°	75	78	87	55	54	82
85°	8	7	7	8	8	11
90°	0	0	0	0	0	



TEST NUMBER: P210606

CATALOG NUMBER: PR8S20D010 - PR8M12WW - 4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	800.7	800.7	800.7	800.7	800.7	800.7	800.7	800.7	800.7
1°	823.4	814.4	805.5	803.1	800.7	788.5	784.5	785.3	781.2
2°	835.5	825.8	813.6	807.2	799.9	782.8	773.9	772.3	766.6
3°	847.7	838.0	822.6	811.2	799.9	777.2	763.4	758.5	752.9
4°	859.8	850.9	831.5	816.9	799.9	772.3	753.7	745.6	739.1
5°	872.8	861.5	841.2	821.7	799.9	767.4	744.8	731.8	724.5
6°	882.5	872.0	849.3	825.8	798.2	761.0	734.2	718.0	713.1
7°	890.6	880.1	855.8	828.2	796.6	754.5	722.1	703.4	697.8
8°	896.3	886.6	859.8	829.0	793.4	745.6	709.9	686.4	679.1
9°	900.4	890.6	863.1	829.8	788.5	735.8	695.3	669.4	660.5
10°	902.0	893.9	866.3	829.8	783.7	726.9	679.9	650.7	641.0
11°	903.6	896.3	867.9	829.8	779.6	718.0	666.1	632.9	621.6
12°	903.6	896.3	869.6	829.8	774.7	708.3	652.4	615.1	602.1
13°	903.6	897.1	872.0	830.7	772.3	701.0	638.6	598.1	583.5
14°	898.7	896.3	872.8	830.7	768.3	691.3	624.8	579.4	564.8
15°	892.2	891.4	871.2	829.8	763.4	681.5	610.2	560.8	545.4
16°	885.0	883.3	868.7	829.0	758.5	671.8	596.5	542.2	524.3
17°	876.0	875.2	864.7	825.8	752.0	661.3	580.2	521.9	504.1
18°	863.9	865.5	859.0	821.7	745.6	650.7	564.0	501.6	483.0
19°	853.3	854.2	850.9	815.3	737.5	637.0	544.6	481.4	460.3
20°	839.6	842.0	841.2	810.4	729.4	624.0	528.4	460.3	439.2
21°	827.4	829.8	829.8	803.9	720.4	611.8	510.6	440.0	420.6
22°	815.3	817.7	818.5	797.4	711.5	599.7	493.5	422.2	403.6
23°	803.1	805.5	807.2	790.9	703.4	587.5	476.5	405.2	389.0
24°	790.9	793.4	795.8	782.8	694.5	574.6	460.3	390.6	375.2
25°	778.0	781.2	784.5	776.4	687.2	563.2	443.3	376.8	363.1
26°	765.0	768.3	772.3	768.3	677.5	549.4	426.3	363.9	350.9
27°	751.2	755.3	760.2	759.3	668.6	537.3	410.1	351.7	338.7
28°	736.7	741.5	748.0	750.4	658.9	524.3	394.7	339.6	328.2
29°	724.5	726.9	733.4	739.9	648.3	510.6	380.9	328.2	316.9
30°	708.3	712.3	718.8	727.7	637.8	497.6	367.1	317.7	307.1
32.5°	671.0	675.9	683.2	699.4	611.0	464.4	337.9	293.4	282.8
35°	637.8	638.6	645.9	665.3	583.5	431.1	312.0	269.9	261.8
37.5°	599.7	603.7	610.2	634.5	558.4	398.7	288.5	250.4	243.1
40°	562.4	565.7	572.1	595.6	528.4	366.3	266.6	233.4	226.9
42.5°	524.3	527.6	534.1	560.8	500.0	333.9	245.6	217.2	211.5
45°	484.6	487.9	495.2	522.7	470.0	303.9	226.9	201.0	195.3
47.5°	447.3	448.1	457.1	484.6	439.2	278.0	209.1	185.6	180.7
50°	410.1	410.9	419.0	446.5	408.4	252.0	192.9	169.4	165.3
52.5°	375.2	375.2	380.1	407.6	376.8	228.5	175.0	154.8	152.4
55°	340.4	339.6	341.2	368.7	345.2	207.5	159.6	141.8	139.4
57.5°	307.1	304.7	305.5	330.6	313.6	186.4	145.1	129.7	127.2
60°	273.9	272.3	269.1	293.4	282.0	164.5	130.5	117.5	115.1
62.5°	240.7	239.1	236.6	256.1	250.4	145.9	116.7	106.2	104.5
65°	206.7	206.7	201.8	218.0	217.2	127.2	103.7	94.8	94.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	172.6	171.0	167.8	180.7	183.1	109.4	90.8	83.5	83.5
70°	139.4	139.4	134.5	143.4	149.1	92.4	78.6	73.7	72.9
72.5°	107.0	107.8	104.5	111.0	117.5	75.4	66.5	64.0	63.2
75°	75.4	78.6	77.8	82.7	86.7	59.2	55.1	53.5	53.5
77.5°	46.2	51.1	53.5	57.5	60.0	44.6	43.8	43.8	43.8
80°	30.0	30.8	32.4	36.5	38.1	30.8	31.6	33.2	34.0
82.5°	17.0	17.0	17.8	19.4	21.1	18.6	20.3	21.9	21.9
85°	8.1	7.3	7.3	7.3	7.3	8.1	8.1	8.9	8.1
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)