

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: P210416

Luminaire Tested: **PR8R20D010 - PR8M12WW - 4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P210416
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: PR8R20D010 - 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: 1971.0 lumens
Efficiency: N/A
Efficacy: 89.6 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

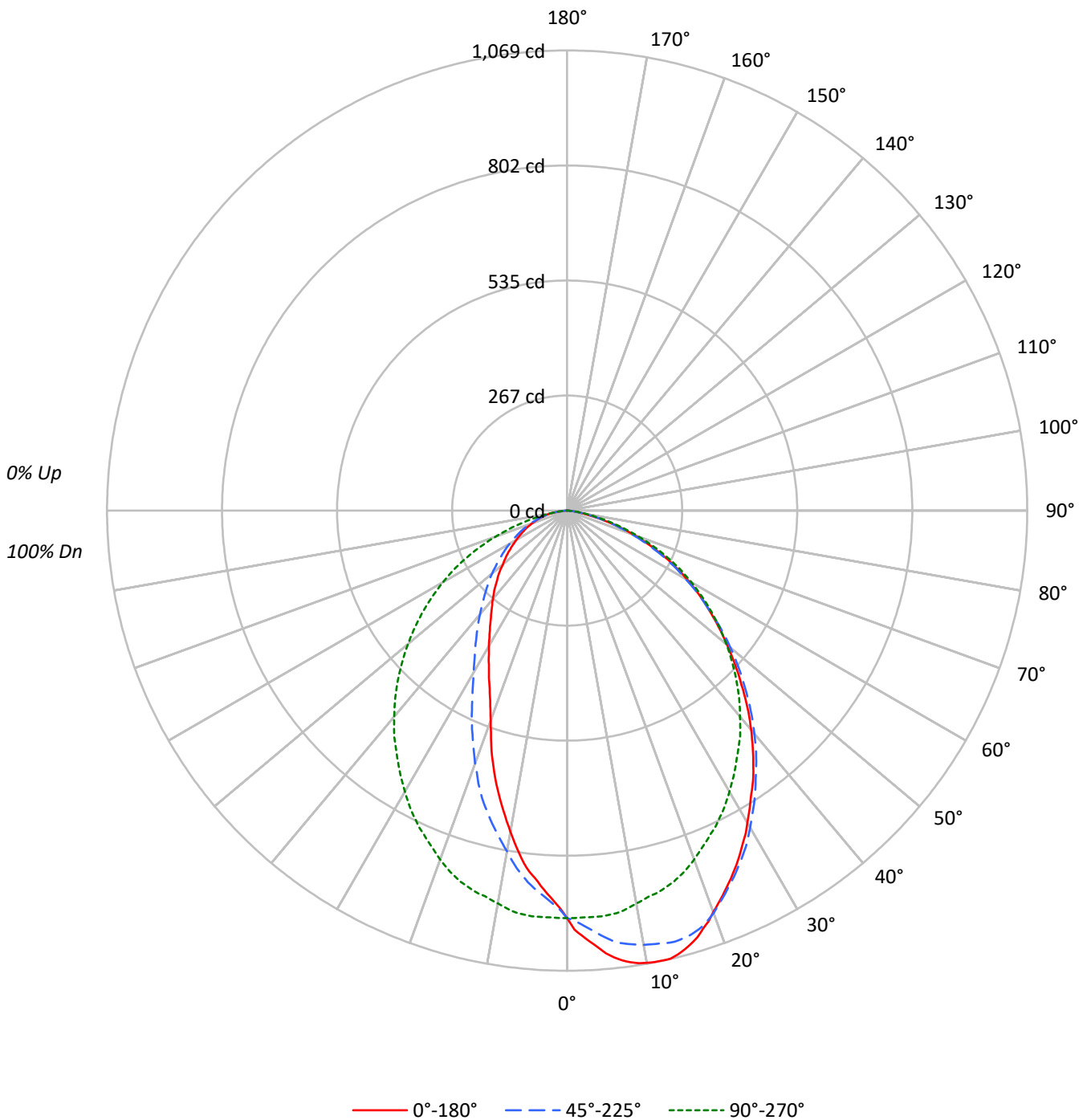
Input Watts (W): 22
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	29199	29199	29199
5°	31951	29279	26521
10°	33401	29017	23738
15°	33686	28821	20591
20°	32582	28303	17044
25°	31302	27651	14607
30°	29824	26855	12932
35°	28391	25974	11655
40°	26773	25155	10800
45°	24992	24238	10074
50°	23262	23171	9379
55°	21639	21951	8860
60°	19976	20568	8394
65°	17833	18737	8114
70°	14858	15895	7781
75°	10616	12212	7542
80°	6304	7991	7156
85°	3397	3043	3397



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	4.5
10°-20°	245.4	12.5
20°-30°	338.7	17.2
30°-40°	369.9	18.8
40°-50°	347.8	17.6
50°-60°	283.8	14.4
60°-70°	192.9	9.8
70°-80°	88.8	4.5
80°-90°	14.6	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°	673.2	34.2
0°-40°	1043.1	52.9
0°-60°	1674.8	85.0
0°-90°	1971.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1971.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	947	947	947	947	947	
5°	1032	995	946	881	857	100
15°	1055	1030	903	722	645	296
25°	920	928	813	524	429	423
35°	754	764	690	369	310	470
45°	573	586	556	268	231	443
55°	402	404	408	189	165	361
65°	244	239	257	123	111	242
75°	89	92	102	65	63	97
85°	10	9	9	10	10	13
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°	946.9	946.9	946.9	946.9	946.9	946.9	946.9	946.9	946.9
1°	973.7	963.2	952.6	949.7	946.9	932.5	927.7	928.7	923.9
2°	988.1	976.6	962.2	954.5	945.9	925.8	915.2	913.3	906.6
3°	1002.4	990.9	972.7	959.3	945.9	919.1	902.8	897.0	890.3
4°	1016.8	1006.3	983.3	966.0	945.9	913.3	891.3	881.7	874.0
5°	1032.2	1018.7	994.8	971.8	945.9	907.6	880.7	865.4	856.8
6°	1043.7	1031.2	1004.4	976.6	944.0	899.9	868.3	849.1	843.4
7°	1053.2	1040.8	1012.0	979.4	942.1	892.2	853.9	831.9	825.1
8°	1059.9	1048.4	1016.8	980.4	938.2	881.7	839.5	811.7	803.1
9°	1064.7	1053.2	1020.7	981.4	932.5	870.2	822.3	791.6	781.1
10°	1066.7	1057.1	1024.5	981.4	926.7	859.6	804.1	769.6	758.1
11°	1068.6	1059.9	1026.4	981.4	921.9	849.1	787.8	748.5	735.1
12°	1068.6	1059.9	1028.3	981.4	916.2	837.6	771.5	727.4	712.1
13°	1068.6	1060.9	1031.2	982.3	913.3	829.0	755.2	707.3	690.0
14°	1062.8	1059.9	1032.2	982.3	908.5	817.5	738.9	685.2	668.0
15°	1055.2	1054.2	1030.2	981.4	902.8	806.0	721.6	663.2	645.0
16°	1046.5	1044.6	1027.4	980.4	897.0	794.5	705.4	641.1	620.1
17°	1036.0	1035.0	1022.6	976.6	889.4	782.0	686.2	617.2	596.1
18°	1021.6	1023.5	1015.9	971.8	881.7	769.6	667.0	593.2	571.2
19°	1009.2	1010.1	1006.3	964.1	872.1	753.3	644.0	569.3	544.3
20°	992.9	995.7	994.8	958.4	862.5	737.9	624.9	544.3	519.4
21°	978.5	981.4	981.4	950.7	852.0	723.6	603.8	520.4	497.4
22°	964.1	967.0	967.9	943.0	841.4	709.2	583.6	499.3	477.3
23°	949.7	952.6	954.5	935.4	831.9	694.8	563.5	479.2	460.0
24°	935.4	938.2	941.1	925.8	821.3	679.5	544.3	461.9	443.7
25°	920.0	923.9	927.7	918.1	812.7	666.1	524.2	445.6	429.3
26°	904.7	908.5	913.3	908.5	801.2	649.8	504.1	430.3	415.0
27°	888.4	893.2	898.9	898.0	790.6	635.4	484.9	415.9	400.6
28°	871.1	876.9	884.6	887.4	779.1	620.1	466.7	401.6	388.1
29°	856.8	859.6	867.3	875.0	766.7	603.8	450.4	388.1	374.7
30°	837.6	842.4	850.1	860.6	754.2	588.4	434.1	375.7	363.2
32.5°	793.5	799.3	807.9	827.1	722.6	549.1	399.6	346.9	334.5
35°	754.2	755.2	763.8	786.8	690.0	509.8	369.0	319.1	309.6
37.5°	709.2	714.0	721.6	750.4	660.3	471.5	341.2	296.1	287.5
40°	665.1	668.9	676.6	704.4	624.9	433.2	315.3	276.0	268.3
42.5°	620.1	623.9	631.6	663.2	591.3	394.8	290.4	256.8	250.1
45°	573.1	576.9	585.6	618.1	555.8	359.4	268.3	237.7	231.0
47.5°	529.0	530.0	540.5	573.1	519.4	328.7	247.3	219.5	213.7
50°	484.9	485.9	495.5	528.1	483.0	298.1	228.1	200.3	195.5
52.5°	443.7	443.7	449.5	482.1	445.6	270.3	207.0	183.0	180.2
55°	402.5	401.6	403.5	436.1	408.3	245.3	188.8	167.7	164.8
57.5°	363.2	360.3	361.3	391.0	370.9	220.4	171.5	153.3	150.5
60°	323.9	322.0	318.2	346.9	333.5	194.5	154.3	139.0	136.1
62.5°	284.6	282.7	279.8	302.8	296.1	172.5	138.0	125.5	123.6
65°	244.4	244.4	238.6	257.8	256.8	150.5	122.7	112.1	111.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	204.1	202.2	198.4	213.7	216.6	129.4	107.3	98.7	98.7
70°	164.8	164.8	159.1	169.6	176.3	109.3	93.0	87.2	86.3
72.5°	126.5	127.5	123.6	131.3	139.0	89.1	78.6	75.7	74.8
75°	89.1	93.0	92.0	97.8	102.5	70.0	65.2	63.3	63.3
77.5°	54.6	60.4	63.3	68.0	70.9	52.7	51.8	51.8	51.8
80°	35.5	36.4	38.3	43.1	45.0	36.4	37.4	39.3	40.3
82.5°	20.1	20.1	21.1	23.0	24.9	22.0	24.0	25.9	25.9
85°	9.6	8.6	8.6	8.6	8.6	9.6	9.6	10.5	9.6
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)