

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: P210605

Luminaire Tested: **PR8S20D010 - PR8M12WW - 3500K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P210605  
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 - 3500K  
Description: HALO 8" ROUND DOWNLIGHT, WALLWASH, MATTE WHITE FINISH  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1776.0 lumens  
Efficiency: N/A  
Efficacy: 80.7 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

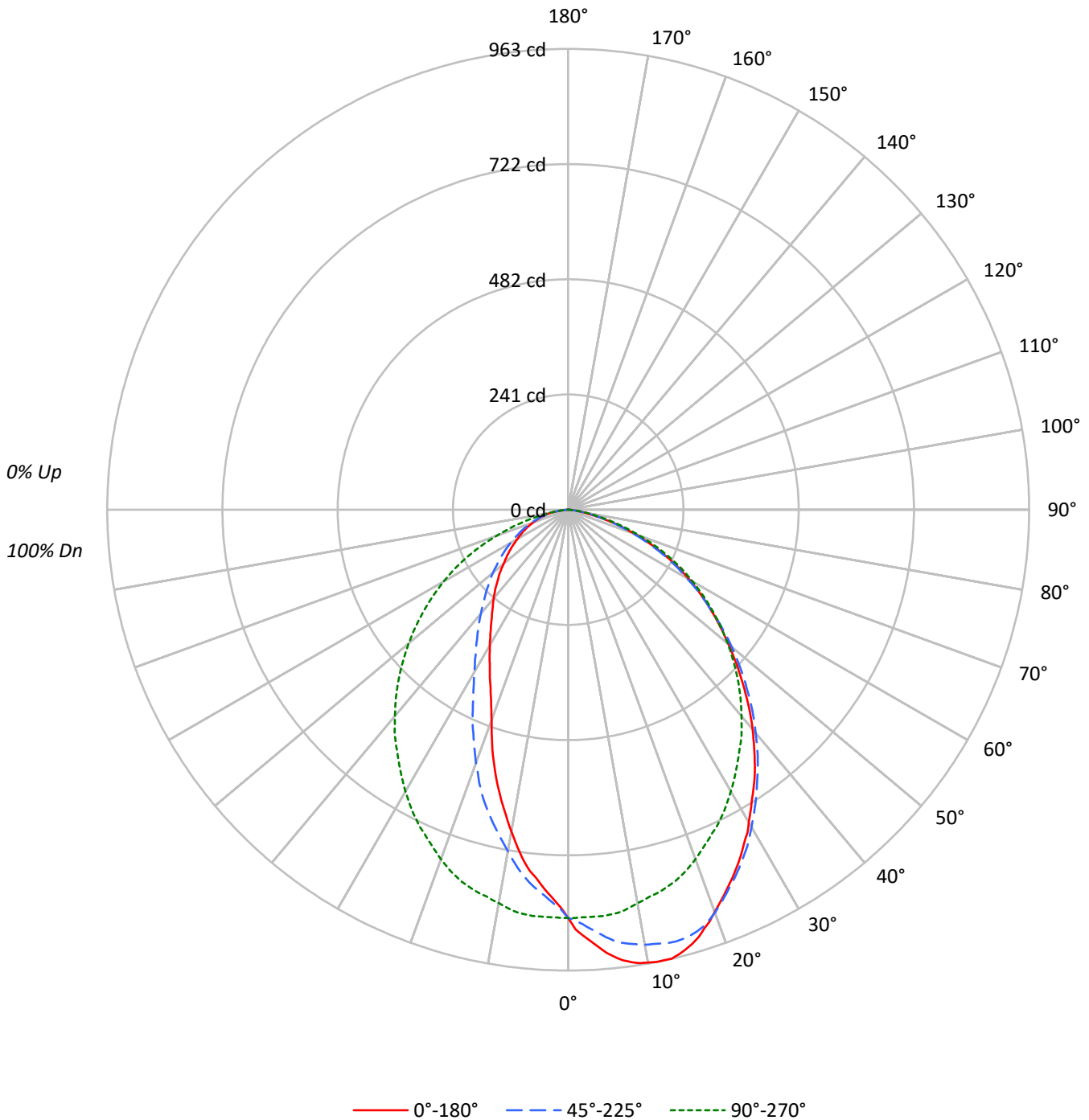
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	26310	26310	26310
5°	28787	26382	23897
10°	30094	26146	21386
15°	30350	25967	18551
20°	29357	25504	15358
25°	28206	24916	13164
30°	26872	24198	11654
35°	25583	23403	10499
40°	24124	22663	9733
45°	22520	21839	9075
50°	20959	20878	8453
55°	19499	19779	7984
60°	18002	18533	7561
65°	16067	16884	7311
70°	13389	14326	7005
75°	9567	11009	6791
80°	5683	7210	6446
85°	3043	2760	3043



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.3	4.5
10°-20°	221.1	12.5
20°-30°	305.2	17.2
30°-40°	333.3	18.8
40°-50°	313.4	17.6
50°-60°	255.7	14.4
60°-70°	173.8	9.8
70°-80°	80.0	4.5
80°-90°	13.2	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°	606.6	34.2
0°-40°	939.9	52.9
0°-60°	1509.1	85.0
0°-90°	1776.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1776.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	853	853	853	853	853	
5°	930	896	852	794	772	90
15°	951	928	813	650	581	266
25°	829	836	732	472	387	381
35°	680	688	622	332	279	424
45°	516	528	501	242	208	399
55°	363	364	368	170	148	325
65°	220	215	231	110	100	218
75°	80	83	92	59	57	88
85°	9	8	8	9	9	12
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°	853.2	853.2	853.2	853.2	853.2	853.2	853.2	853.2	853.2
1°	877.3	867.8	858.3	855.7	853.2	840.2	835.9	836.8	832.4
2°	890.3	879.9	867.0	860.1	852.3	834.2	824.7	822.9	816.9
3°	903.2	892.9	876.5	864.4	852.3	828.1	813.4	808.3	802.2
4°	916.2	906.7	886.0	870.4	852.3	822.9	803.1	794.4	787.5
5°	930.0	917.9	896.3	875.6	852.3	817.8	793.6	779.8	772.0
6°	940.4	929.1	905.0	879.9	850.6	810.8	782.3	765.1	759.9
7°	949.0	937.8	911.9	882.5	848.8	803.9	769.4	749.5	743.5
8°	955.1	944.7	916.2	883.4	845.4	794.4	756.4	731.4	723.6
9°	959.4	949.0	919.6	884.2	840.2	784.1	740.9	713.3	703.8
10°	961.1	952.5	923.1	884.2	835.0	774.6	724.5	693.4	683.0
11°	962.8	955.1	924.8	884.2	830.7	765.1	709.8	674.4	662.3
12°	962.8	955.1	926.6	884.2	825.5	754.7	695.1	655.4	641.6
13°	962.8	955.9	929.1	885.1	822.9	746.9	680.5	637.3	621.7
14°	957.6	955.1	930.0	885.1	818.6	736.6	665.8	617.4	601.9
15°	950.7	949.9	928.3	884.2	813.4	726.2	650.2	597.6	581.1
16°	943.0	941.2	925.7	883.4	808.3	715.9	635.6	577.7	558.7
17°	933.5	932.6	921.4	879.9	801.3	704.6	618.3	556.1	537.1
18°	920.5	922.2	915.3	875.6	794.4	693.4	601.0	534.5	514.7
19°	909.3	910.1	906.7	868.7	785.8	678.7	580.3	512.9	490.5
20°	894.6	897.2	896.3	863.5	777.2	664.9	563.0	490.5	468.0
21°	881.7	884.2	884.2	856.6	767.7	652.0	544.0	468.9	448.2
22°	868.7	871.3	872.2	849.7	758.2	639.0	525.9	449.9	430.0
23°	855.7	858.3	860.1	842.8	749.5	626.1	507.7	431.8	414.5
24°	842.8	845.4	848.0	834.2	740.0	612.2	490.5	416.2	399.8
25°	829.0	832.4	835.9	827.3	732.3	600.1	472.3	401.5	386.9
26°	815.2	818.6	822.9	818.6	721.9	585.5	454.2	387.7	373.9
27°	800.5	804.8	810.0	809.1	712.4	572.5	436.9	374.8	361.0
28°	784.9	790.1	797.0	799.6	702.0	558.7	420.5	361.8	349.7
29°	772.0	774.6	781.5	788.4	690.8	544.0	405.9	349.7	337.6
30°	754.7	759.0	765.9	775.4	679.6	530.2	391.2	338.5	327.3
32.5°	715.0	720.2	727.9	745.2	651.1	494.8	360.1	312.6	301.4
35°	679.6	680.5	688.2	708.9	621.7	459.4	332.5	287.6	278.9
37.5°	639.0	643.3	650.2	676.1	595.0	424.9	307.4	266.8	259.1
40°	599.3	602.7	609.6	634.7	563.0	390.3	284.1	248.7	241.8
42.5°	558.7	562.2	569.1	597.6	532.8	355.8	261.6	231.4	225.4
45°	516.4	519.8	527.6	557.0	500.8	323.8	241.8	214.2	208.1
47.5°	476.7	477.5	487.0	516.4	468.0	296.2	222.8	197.7	192.6
50°	436.9	437.8	446.4	475.8	435.2	268.6	205.5	180.5	176.2
52.5°	399.8	399.8	405.0	434.4	401.5	243.5	186.5	164.9	162.3
55°	362.7	361.8	363.5	392.9	367.9	221.1	170.1	151.1	148.5
57.5°	327.3	324.7	325.5	352.3	334.2	198.6	154.6	138.2	135.6
60°	291.9	290.1	286.7	312.6	300.5	175.3	139.0	125.2	122.6
62.5°	256.5	254.7	252.1	272.9	266.8	155.4	124.3	113.1	111.4
65°	220.2	220.2	215.0	232.3	231.4	135.6	110.5	101.0	100.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	183.9	182.2	178.7	192.6	195.2	116.6	96.7	88.9	88.9
70°	148.5	148.5	143.3	152.8	158.9	98.4	83.8	78.6	77.7
72.5°	114.0	114.8	111.4	118.3	125.2	80.3	70.8	68.2	67.4
75°	80.3	83.8	82.9	88.1	92.4	63.0	58.7	57.0	57.0
77.5°	49.2	54.4	57.0	61.3	63.9	47.5	46.6	46.6	46.6
80°	32.0	32.8	34.5	38.9	40.6	32.8	33.7	35.4	36.3
82.5°	18.1	18.1	19.0	20.7	22.5	19.9	21.6	23.3	23.3
85°	8.6	7.8	7.8	7.8	7.8	8.6	8.6	9.5	8.6
87.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)