

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: P210251

Luminaire Tested: **PR830D010 - PR8M34WW - 4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P210251  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29052)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PR830D010 - PR8M34WW - 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: 2839.6 lumens  
Efficiency: N/A  
Efficacy: 99.6 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 1.18 / 1.17  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

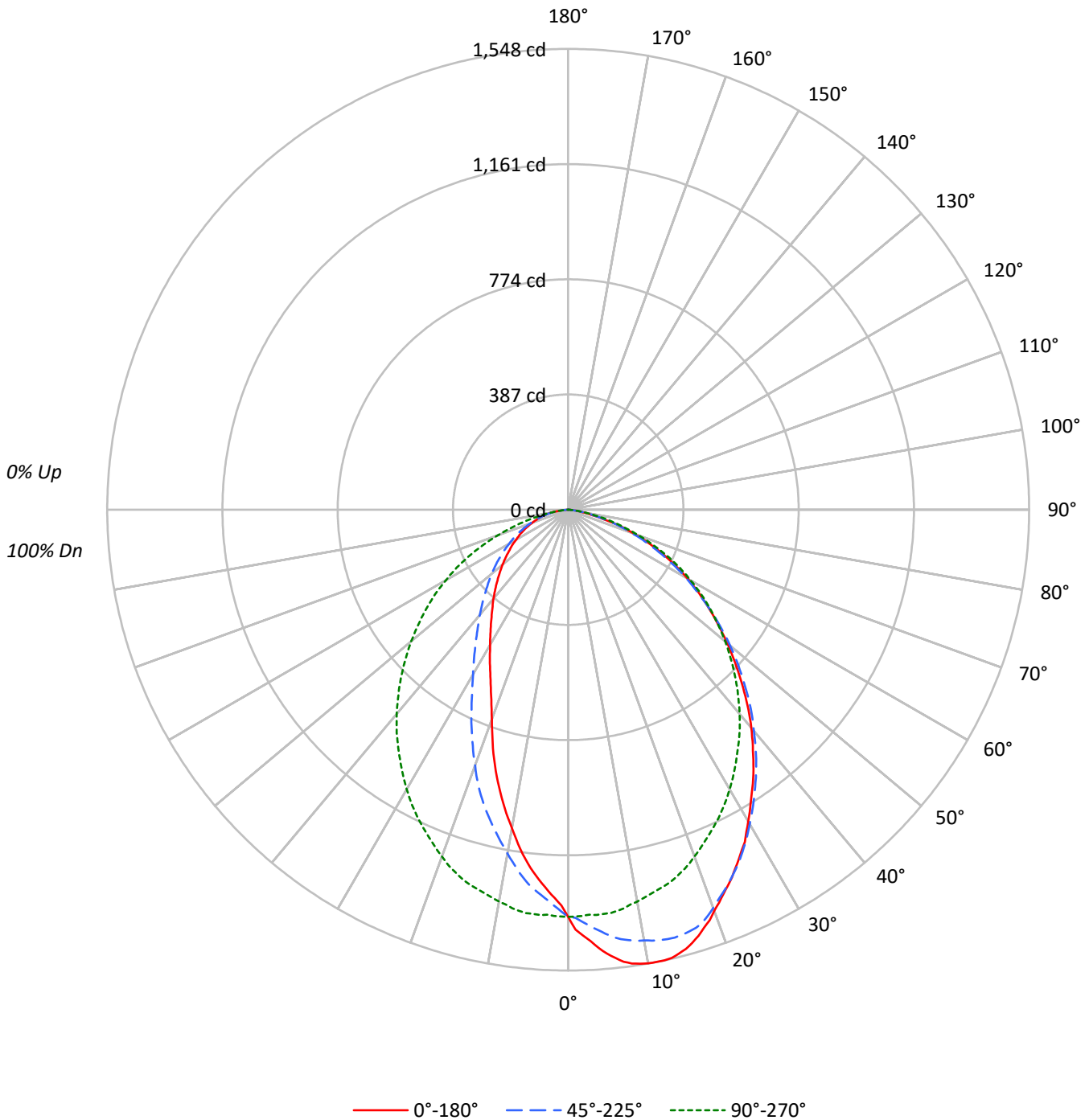
Input Watts (W): 28.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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					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	64					64			
4	86	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	51	49					49			
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	39					39			
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	38	33	32					32			
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	31	29					29			

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

	0°	90°	180°
0°	42172	42172	42172
5°	46338	42184	38222
10°	48462	41864	34027
15°	48767	41485	29610
20°	47070	40681	24618
25°	45184	39672	21030
30°	43052	38623	18690
35°	40833	37324	16910
40°	38511	36047	15703
45°	35930	34595	14644
50°	33423	33020	13807
55°	31026	31327	13048
60°	28604	29288	12433
65°	25363	26632	12076
70°	21187	22630	11594
75°	14583	17645	11271
80°	8648	11241	10619
85°	4175	4423	5661



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.8	4.5
10°-20°	354.1	12.5
20°-30°	488.5	17.2
30°-40°	532.9	18.8
40°-50°	500.4	17.6
50°-60°	409.2	14.4
60°-70°	277.4	9.8
70°-80°	127.3	4.5
80°-90°	21.0	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°	971.4	34.2
0°-40°	1504.3	53.0
0°-60°	2413.9	85.0
0°-90°	2839.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2839.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1368	1368	1368	1368	1368	
5°	1497	1430	1363	1282	1235	145
15°	1528	1478	1300	1054	928	427
25°	1328	1332	1166	769	618	611
35°	1085	1099	992	540	449	677
45°	824	841	793	393	336	637
55°	577	579	583	280	243	517
65°	348	336	365	182	166	345
75°	122	129	148	96	95	138
85°	12	11	12	16	16	18
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°	1367.6	1367.6	1367.6	1367.6	1367.6	1367.6	1367.6	1367.6	1367.6
1°	1410.7	1385.7	1371.1	1383.6	1366.9	1350.9	1349.6	1343.3	1329.4
2°	1431.6	1405.2	1385.7	1390.6	1365.5	1340.5	1331.5	1316.9	1305.1
3°	1451.8	1424.6	1400.3	1397.5	1362.1	1329.4	1314.1	1294.6	1282.8
4°	1476.1	1444.8	1414.9	1405.9	1364.9	1321.0	1298.1	1272.4	1258.5
5°	1497.0	1465.7	1429.5	1412.1	1362.8	1312.0	1282.1	1250.1	1234.8
6°	1514.3	1481.0	1443.4	1419.8	1362.8	1300.9	1265.4	1226.5	1209.8
7°	1529.6	1494.9	1453.8	1424.6	1357.2	1288.4	1244.6	1202.2	1182.0
8°	1539.4	1505.3	1460.1	1426.0	1351.6	1273.8	1222.3	1174.3	1152.1
9°	1544.2	1512.9	1466.4	1424.6	1342.6	1257.8	1197.3	1144.4	1119.4
10°	1547.7	1517.8	1469.1	1424.0	1337.0	1241.8	1173.6	1113.9	1086.7
11°	1547.7	1518.5	1474.7	1422.6	1328.7	1225.1	1149.3	1083.3	1056.1
12°	1547.7	1517.8	1478.2	1422.6	1321.0	1209.8	1125.7	1053.4	1024.9
13°	1545.6	1518.5	1480.3	1424.0	1313.4	1193.8	1101.3	1022.8	992.9
14°	1536.6	1517.1	1481.0	1422.6	1307.1	1181.3	1077.7	992.9	960.2
15°	1527.6	1508.8	1478.2	1421.2	1299.5	1164.6	1054.1	961.6	927.5
16°	1512.9	1497.0	1474.0	1417.7	1290.5	1147.9	1029.0	930.3	892.8
17°	1496.3	1481.7	1468.5	1411.4	1278.6	1128.5	1002.6	897.6	858.0
18°	1476.8	1466.4	1458.0	1403.1	1267.5	1107.6	974.8	863.5	821.8
19°	1458.7	1447.6	1442.0	1395.4	1255.0	1087.4	946.3	829.5	785.0
20°	1434.4	1426.0	1424.0	1384.3	1239.7	1063.8	913.6	794.0	750.2
21°	1413.5	1408.0	1404.5	1372.5	1225.8	1043.6	885.1	758.6	718.2
22°	1392.0	1387.1	1387.1	1362.8	1210.5	1022.1	855.2	727.3	689.0
23°	1371.8	1365.5	1370.4	1348.9	1195.9	1001.9	826.7	697.4	664.0
24°	1351.6	1347.5	1350.9	1337.0	1181.3	981.1	798.2	672.3	639.7
25°	1328.0	1324.5	1331.5	1322.4	1166.0	958.8	769.0	648.7	618.1
26°	1307.1	1303.0	1311.3	1309.9	1152.1	935.9	740.5	625.8	597.9
27°	1283.5	1280.7	1289.1	1292.5	1135.4	915.7	712.7	604.9	579.2
28°	1263.3	1259.2	1267.5	1275.9	1119.4	892.1	686.3	584.7	560.4
29°	1235.5	1234.1	1243.2	1257.8	1102.0	871.2	661.9	566.0	541.6
30°	1209.1	1210.5	1218.8	1239.7	1084.7	848.9	639.0	547.9	524.9
32.5°	1145.1	1149.3	1159.7	1186.2	1038.8	791.9	587.5	504.8	485.3
35°	1084.7	1084.0	1098.6	1127.8	991.5	735.6	539.5	466.5	449.2
37.5°	1019.3	1022.8	1036.0	1070.7	945.6	680.7	498.5	432.5	417.9
40°	956.7	961.6	970.6	1008.9	895.5	622.3	461.7	401.2	390.1
42.5°	891.4	897.6	907.4	945.6	844.1	568.7	426.9	373.4	362.2
45°	823.9	831.6	840.6	880.9	793.3	516.6	392.8	347.6	335.8
47.5°	760.0	764.1	775.2	816.3	740.5	472.8	363.6	321.2	311.5
50°	696.7	700.9	709.2	750.9	688.3	430.4	335.1	296.9	287.8
52.5°	636.2	639.0	643.8	688.3	634.8	390.8	308.0	272.6	264.9
55°	577.1	578.5	579.2	623.7	582.7	352.5	280.2	249.6	242.7
57.5°	520.1	520.1	513.8	558.3	529.8	317.1	254.5	227.4	223.9
60°	463.8	463.8	456.1	495.0	474.9	283.0	229.4	206.5	201.6
62.5°	406.0	406.7	395.6	429.7	422.0	250.3	205.8	185.6	184.3
65°	347.6	348.3	336.5	366.4	365.0	218.3	182.2	166.2	165.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	291.3	290.6	279.5	304.5	308.7	189.1	159.2	146.7	146.7
70°	235.0	235.0	225.3	243.4	251.0	157.8	136.3	127.9	128.6
72.5°	183.6	182.9	176.6	187.7	196.1	128.6	116.1	110.6	111.2
75°	122.4	129.3	128.6	139.1	148.1	102.2	95.9	93.2	94.6
77.5°	78.6	82.7	87.6	96.6	101.5	77.2	75.1	75.1	76.5
80°	48.7	50.8	54.9	59.8	63.3	53.5	55.6	57.7	59.8
82.5°	27.8	27.8	29.2	32.0	36.9	32.7	35.5	38.2	38.2
85°	11.8	11.8	11.1	11.1	12.5	13.9	16.0	16.7	16.0
87.5°	2.8	2.8	2.1	1.4	2.1	2.8	3.5	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)