

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: P210311

Luminaire Tested: **PR830D010 - PR8M34WW - 3500K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P210311
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 - 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: 3053.1 lumens
Efficiency: N/A
Efficacy: 107.1 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

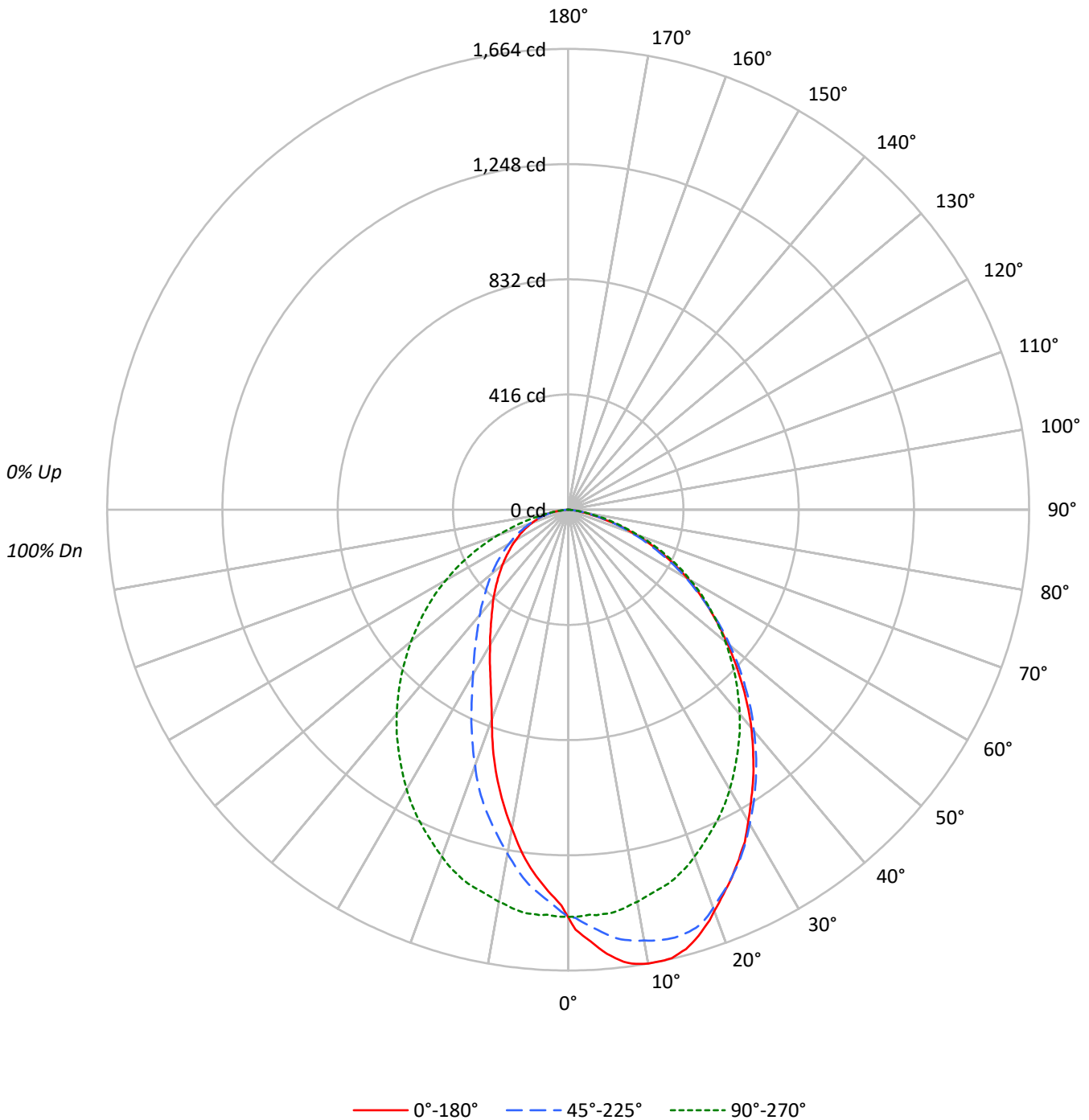
Input Watts (W): 28.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	45345	45345	45345
5°	49821	45354	41098
10°	52106	45014	36588
15°	52432	44604	31838
20°	50608	43740	26469
25°	48583	42656	22612
30°	46289	41525	20096
35°	43901	40129	18178
40°	41409	38761	16883
45°	38633	37199	15747
50°	35936	35505	14848
55°	33359	33682	14026
60°	30750	31490	13371
65°	27274	28639	12980
70°	22783	24334	12469
75°	15679	18967	12117
80°	9287	12075	11418
85°	4493	4776	6085



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.4	4.5
10°-20°	380.8	12.5
20°-30°	525.3	17.2
30°-40°	573.0	18.8
40°-50°	538.0	17.6
50°-60°	439.9	14.4
60°-70°	298.3	9.8
70°-80°	136.9	4.5
80°-90°	22.6	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°	1044.5	34.2
0°-40°	1617.4	53.0
0°-60°	2595.4	85.0
0°-90°	3053.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3053.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1470	1470	1470	1470	1470	
5°	1610	1537	1465	1378	1328	155
15°	1642	1589	1397	1133	997	460
25°	1428	1432	1254	827	665	657
35°	1166	1181	1066	580	483	728
45°	886	904	853	422	361	684
55°	620	623	626	301	261	556
65°	374	362	392	196	178	370
75°	132	138	159	103	102	149
85°	13	12	14	17	17	19
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°	1470.5	1470.5	1470.5	1470.5	1470.5	1470.5	1470.5	1470.5	1470.5
1°	1516.8	1489.9	1474.2	1487.7	1469.7	1452.5	1451.0	1444.3	1429.4
2°	1539.2	1510.8	1489.9	1495.1	1468.2	1441.3	1431.6	1415.9	1403.2
3°	1560.9	1531.8	1505.6	1502.6	1464.5	1429.4	1412.9	1392.0	1379.3
4°	1587.1	1553.5	1521.3	1511.6	1467.5	1420.4	1395.7	1368.1	1353.1
5°	1609.5	1575.9	1537.0	1518.3	1465.2	1410.7	1378.5	1344.1	1327.7
6°	1628.2	1592.3	1552.0	1526.5	1465.2	1398.7	1360.6	1318.7	1300.8
7°	1644.7	1607.3	1563.2	1531.8	1459.3	1385.2	1338.2	1292.5	1270.9
8°	1655.1	1618.5	1569.9	1533.3	1453.3	1369.5	1314.2	1262.6	1238.7
9°	1660.4	1626.7	1576.6	1531.8	1443.6	1352.4	1287.3	1230.5	1203.6
10°	1664.1	1631.9	1579.6	1531.0	1437.6	1335.2	1261.9	1197.6	1168.5
11°	1664.1	1632.7	1585.6	1529.5	1428.6	1317.2	1235.7	1164.7	1135.6
12°	1664.1	1631.9	1589.3	1529.5	1420.4	1300.8	1210.3	1132.6	1101.9
13°	1661.8	1632.7	1591.6	1531.0	1412.2	1283.6	1184.2	1099.7	1067.5
14°	1652.1	1631.2	1592.3	1529.5	1405.4	1270.1	1158.7	1067.5	1032.4
15°	1642.4	1622.2	1589.3	1528.0	1397.2	1252.2	1133.3	1033.9	997.3
16°	1626.7	1609.5	1584.8	1524.3	1387.5	1234.2	1106.4	1000.2	959.9
17°	1608.8	1593.1	1578.9	1517.6	1374.8	1213.3	1078.0	965.1	922.5
18°	1587.8	1576.6	1567.7	1508.6	1362.8	1190.9	1048.1	928.5	883.6
19°	1568.4	1556.4	1550.5	1500.4	1349.4	1169.2	1017.4	891.9	844.0
20°	1542.2	1533.3	1531.0	1488.4	1332.9	1143.8	982.3	853.7	806.6
21°	1519.8	1513.8	1510.1	1475.7	1318.0	1122.1	951.7	815.6	772.2
22°	1496.6	1491.4	1491.4	1465.2	1301.5	1098.9	919.5	782.0	740.8
23°	1475.0	1468.2	1473.5	1450.3	1285.8	1077.2	888.9	749.8	713.9
24°	1453.3	1448.8	1452.5	1437.6	1270.1	1054.8	858.2	722.9	687.8
25°	1427.9	1424.1	1431.6	1421.9	1253.7	1030.9	826.8	697.5	664.6
26°	1405.4	1400.9	1409.9	1408.4	1238.7	1006.2	796.2	672.8	642.9
27°	1380.0	1377.0	1386.0	1389.7	1220.8	984.6	766.3	650.4	622.7
28°	1358.3	1353.8	1362.8	1371.8	1203.6	959.1	737.9	628.7	602.5
29°	1328.4	1326.9	1336.7	1352.4	1184.9	936.7	711.7	608.5	582.4
30°	1300.0	1301.5	1310.5	1332.9	1166.2	912.8	687.0	589.1	564.4
32.5°	1231.2	1235.7	1246.9	1275.4	1116.9	851.5	631.7	542.7	521.8
35°	1166.2	1165.5	1181.2	1212.6	1066.0	790.9	580.1	501.6	482.9
37.5°	1095.9	1099.7	1113.9	1151.3	1016.7	731.9	536.0	465.0	449.3
40°	1028.7	1033.9	1043.6	1084.7	962.9	669.1	496.4	431.3	419.4
42.5°	958.4	965.1	975.6	1016.7	907.6	611.5	459.0	401.4	389.5
45°	885.9	894.1	903.8	947.2	853.0	555.4	422.4	373.8	361.1
47.5°	817.1	821.6	833.5	877.6	796.2	508.3	391.0	345.4	334.9
50°	749.1	753.6	762.5	807.4	740.1	462.7	360.3	319.2	309.5
52.5°	684.0	687.0	692.3	740.1	682.5	420.1	331.2	293.0	284.8
55°	620.5	622.0	622.7	670.6	626.5	379.0	301.3	268.4	260.9
57.5°	559.2	559.2	552.5	600.3	569.6	340.9	273.6	244.5	240.7
60°	498.6	498.6	490.4	532.3	510.6	304.3	246.7	222.0	216.8
62.5°	436.6	437.3	425.4	462.0	453.8	269.1	221.3	199.6	198.1
65°	373.8	374.5	361.8	394.0	392.5	234.7	195.9	178.7	177.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	313.2	312.5	300.5	327.4	331.9	203.3	171.2	157.7	157.7
70°	252.7	252.7	242.2	261.6	269.9	169.7	146.5	137.6	138.3
72.5°	197.4	196.6	189.9	201.8	210.8	138.3	124.8	118.9	119.6
75°	131.6	139.0	138.3	149.5	159.2	109.9	103.2	100.2	101.7
77.5°	84.5	89.0	94.2	103.9	109.1	83.0	80.7	80.7	82.2
80°	52.3	54.6	59.1	64.3	68.0	57.6	59.8	62.0	64.3
82.5°	29.9	29.9	31.4	34.4	39.6	35.1	38.1	41.1	41.1
85°	12.7	12.7	12.0	12.0	13.5	15.0	17.2	17.9	17.2
87.5°	3.0	3.0	2.2	1.5	2.2	3.0	3.7	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)