

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: P210254

Luminaire Tested: **PR840D010 - PR8M34WW - 3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P210254
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: PR840D010 - PR8M34WW - 3000K
Description: HALO 8" ROUND DOWNLIGHT, WALLWASH, MATTE WHITE FINISH
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3697.5 lumens
Efficiency: N/A
Efficacy: 85.0 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

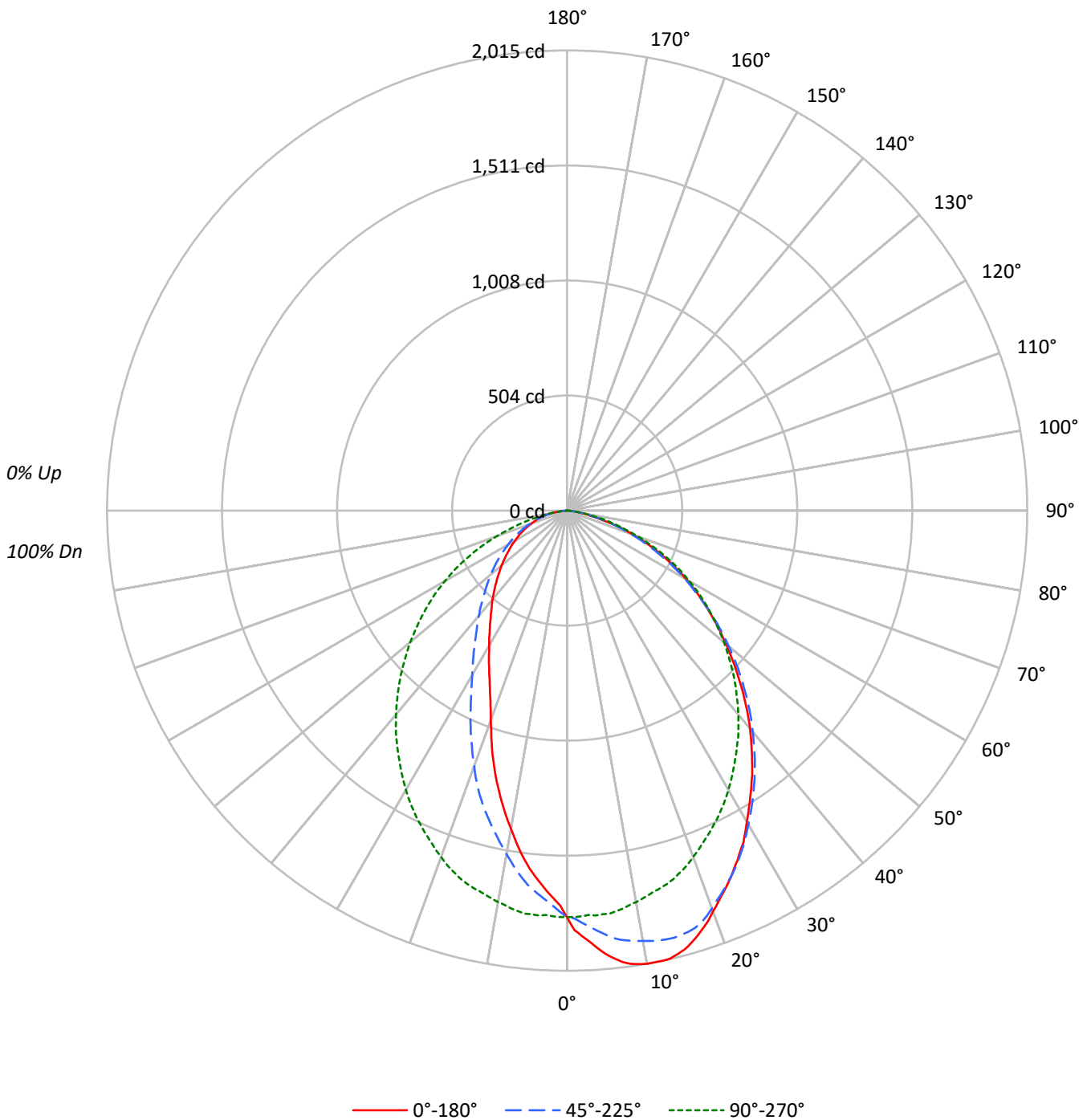
Input Watts (W): 43.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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	64
4	86	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	51	49
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	39
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	38	33	32
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	54913	54913	54913
5°	60336	54928	49771
10°	63103	54514	44310
15°	63500	54019	38558
20°	61292	52974	32057
25°	58834	51659	27386
30°	56059	50291	24337
35°	53169	48599	22018
40°	50148	46940	20445
45°	46788	45048	19070
50°	43521	42998	17980
55°	40402	40789	16989
60°	37244	38138	16195
65°	33031	34680	15724
70°	27589	29464	15102
75°	18979	22971	14666
80°	11259	14633	13833
85°	5449	5767	7359



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.7	4.5
10°-20°	461.1	12.5
20°-30°	636.1	17.2
30°-40°	693.9	18.8
40°-50°	651.6	17.6
50°-60°	532.8	14.4
60°-70°	361.2	9.8
70°-80°	165.8	4.5
80°-90°	27.3	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°	1264.9	34.2
0°-40°	1958.8	53.0
0°-60°	3143.2	85.0
0°-90°	3697.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3697.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1781	1781	1781	1781	1781	
5°	1949	1861	1774	1670	1608	188
15°	1989	1925	1692	1372	1208	557
25°	1729	1734	1518	1001	805	796
35°	1412	1430	1291	703	585	882
45°	1073	1095	1033	512	437	829
55°	752	754	759	365	316	673
65°	453	438	475	237	216	449
75°	159	168	193	125	123	180
85°	15	14	16	21	21	24
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°	1780.8	1780.8	1780.8	1780.8	1780.8	1780.8	1780.8	1780.8	1780.8
1°	1837.0	1804.4	1785.4	1801.7	1779.9	1759.1	1757.3	1749.2	1731.1
2°	1864.1	1829.7	1804.4	1810.7	1778.1	1745.5	1733.8	1714.8	1699.4
3°	1890.4	1855.1	1823.4	1819.8	1773.6	1731.1	1711.1	1685.8	1670.4
4°	1922.1	1881.3	1842.4	1830.6	1777.2	1720.2	1690.3	1656.8	1638.7
5°	1949.2	1908.5	1861.4	1838.8	1774.5	1708.4	1669.5	1627.8	1607.9
6°	1971.9	1928.4	1879.5	1848.8	1774.5	1693.9	1647.8	1597.1	1575.3
7°	1991.8	1946.5	1893.1	1855.1	1767.3	1677.6	1620.6	1565.4	1539.1
8°	2004.5	1960.1	1901.3	1856.9	1760.0	1658.6	1591.6	1529.2	1500.2
9°	2010.8	1970.1	1909.4	1855.1	1748.3	1637.8	1559.0	1490.2	1457.6
10°	2015.3	1976.4	1913.0	1854.2	1741.0	1617.0	1528.3	1450.4	1415.1
11°	2015.3	1977.3	1920.3	1852.4	1730.1	1595.2	1496.6	1410.6	1375.2
12°	2015.3	1976.4	1924.8	1852.4	1720.2	1575.3	1465.8	1371.6	1334.5
13°	2012.6	1977.3	1927.5	1854.2	1710.2	1554.5	1434.1	1331.8	1292.9
14°	2000.9	1975.5	1928.4	1852.4	1702.1	1538.2	1403.3	1292.9	1250.3
15°	1989.1	1964.6	1924.8	1850.6	1692.1	1516.5	1372.5	1252.1	1207.8
16°	1970.1	1949.2	1919.4	1846.0	1680.4	1494.8	1339.9	1211.4	1162.5
17°	1948.3	1929.3	1912.1	1837.9	1665.0	1469.4	1305.5	1168.8	1117.2
18°	1923.0	1909.4	1898.5	1827.0	1650.5	1442.2	1269.3	1124.5	1070.1
19°	1899.5	1885.0	1877.7	1817.1	1634.2	1416.0	1232.2	1080.1	1022.2
20°	1867.8	1856.9	1854.2	1802.6	1614.3	1385.2	1189.6	1033.9	976.9
21°	1840.6	1833.4	1828.8	1787.2	1596.2	1358.9	1152.5	987.8	935.2
22°	1812.5	1806.2	1806.2	1774.5	1576.2	1330.9	1113.6	947.0	897.2
23°	1786.3	1778.1	1784.5	1756.4	1557.2	1304.6	1076.5	908.1	864.6
24°	1760.0	1754.6	1759.1	1741.0	1538.2	1277.5	1039.4	875.5	832.9
25°	1729.2	1724.7	1733.8	1722.0	1518.3	1248.5	1001.3	844.7	804.9
26°	1702.1	1696.6	1707.5	1705.7	1500.2	1218.6	964.2	814.8	778.6
27°	1671.3	1667.7	1678.5	1683.1	1478.5	1192.4	928.0	787.7	754.2
28°	1645.0	1639.6	1650.5	1661.3	1457.6	1161.6	893.6	761.4	729.7
29°	1608.8	1607.0	1618.8	1637.8	1435.0	1134.4	861.9	737.0	705.3
30°	1574.4	1576.2	1587.1	1614.3	1412.4	1105.4	832.0	713.4	683.5
32.5°	1491.1	1496.6	1510.1	1544.5	1352.6	1031.2	765.0	657.3	631.9
35°	1412.4	1411.5	1430.5	1468.5	1291.0	957.9	702.6	607.5	584.9
37.5°	1327.3	1331.8	1349.0	1394.3	1231.3	886.3	649.1	563.1	544.1
40°	1245.8	1252.1	1263.9	1313.7	1166.1	810.3	601.2	522.4	507.9
42.5°	1160.7	1168.8	1181.5	1231.3	1099.1	740.6	555.9	486.2	471.7
45°	1072.9	1082.8	1094.6	1147.1	1033.0	672.7	511.5	452.7	437.3
47.5°	989.6	995.0	1009.5	1062.9	964.2	615.6	473.5	418.3	405.6
50°	907.2	912.6	923.5	977.8	896.3	560.4	436.4	386.6	374.8
52.5°	828.4	832.0	838.4	896.3	826.6	508.8	401.1	354.9	344.9
55°	751.5	753.3	754.2	812.1	758.7	459.0	364.9	325.0	316.0
57.5°	677.2	677.2	669.1	727.0	689.9	412.8	331.4	296.1	291.5
60°	603.9	603.9	593.9	644.6	618.4	368.5	298.8	268.9	262.6
62.5°	528.7	529.6	515.2	559.5	549.6	325.9	268.0	241.7	239.9
65°	452.7	453.6	438.2	477.1	475.3	284.3	237.2	216.4	215.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	379.3	378.4	364.0	396.5	402.0	246.3	207.3	191.0	191.0
70°	306.0	306.0	293.3	316.9	326.8	205.5	177.5	166.6	167.5
72.5°	239.0	238.1	230.0	244.4	255.3	167.5	151.2	144.0	144.9
75°	159.3	168.4	167.5	181.1	192.8	133.1	124.9	121.3	123.1
77.5°	102.3	107.7	114.1	125.8	132.2	100.5	97.8	97.8	99.6
80°	63.4	66.1	71.5	77.9	82.4	69.7	72.4	75.1	77.9
82.5°	36.2	36.2	38.0	41.6	48.0	42.6	46.2	49.8	49.8
85°	15.4	15.4	14.5	14.5	16.3	18.1	20.8	21.7	20.8
87.5°	3.6	3.6	2.7	1.8	2.7	3.6	4.5	4.5	4.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)