

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: P210312

Luminaire Tested: **PR840D010 - PR8M34WW - 3500K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P210312  
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 - 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: 4172.0 lumens  
Efficiency: N/A  
Efficacy: 95.9 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

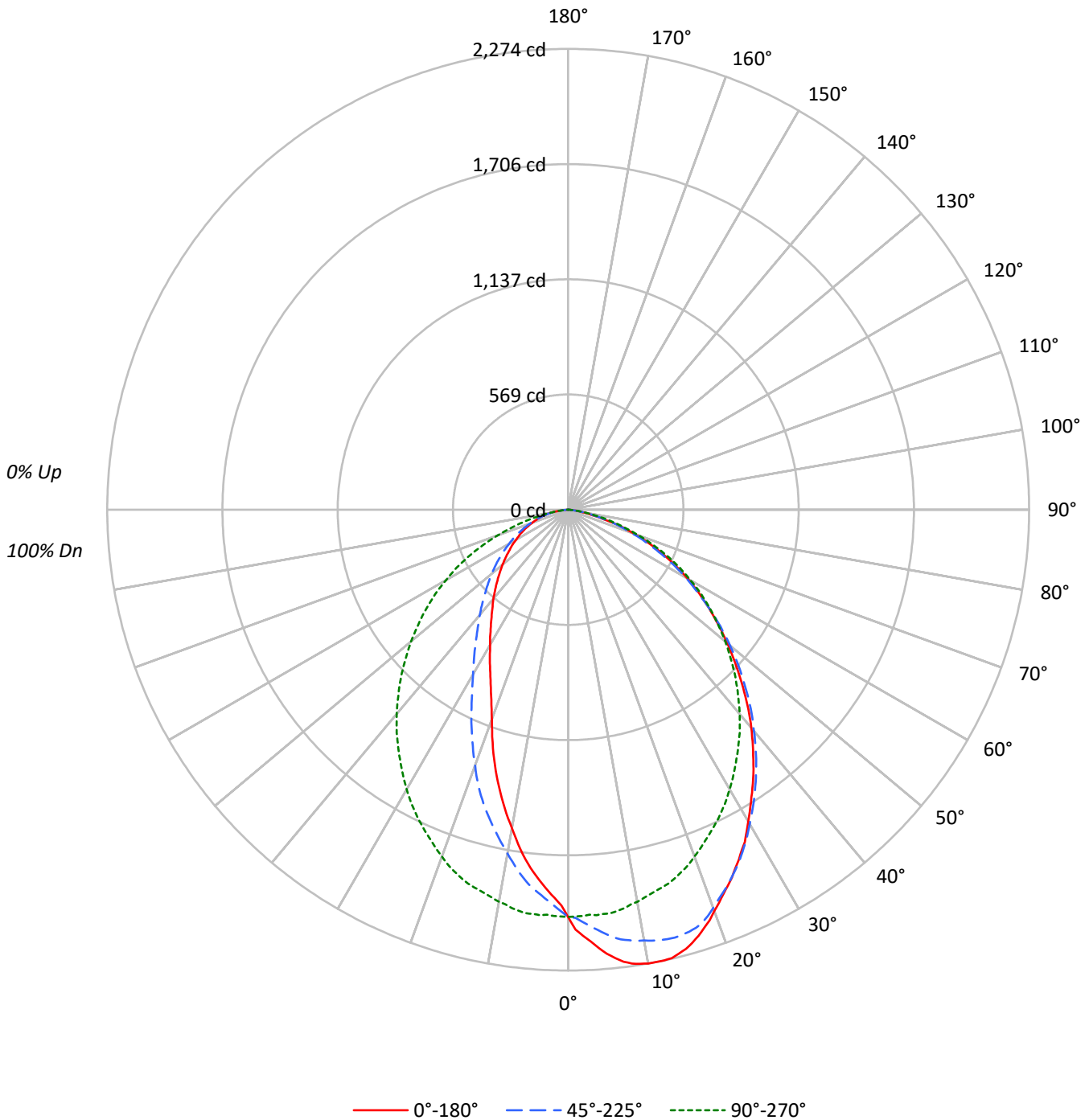
Input Watts (W): 43.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	61962	61962	61962
5°	68080	61976	56160
10°	71200	61509	49996
15°	71647	60953	43503
20°	69155	59770	36169
25°	66384	58287	30897
30°	63255	56743	27463
35°	59990	54836	24841
40°	56581	52962	23070
45°	52789	50831	21517
50°	49105	48515	20288
55°	45584	46020	19166
60°	42024	43029	18267
65°	37270	39131	17738
70°	31132	33251	17040
75°	21422	25925	16549
80°	12697	16515	15609
85°	6156	6510	8314



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.2	4.5
10°-20°	520.3	12.5
20°-30°	717.8	17.2
30°-40°	783.0	18.8
40°-50°	735.2	17.6
50°-60°	601.1	14.4
60°-70°	407.6	9.8
70°-80°	187.1	4.5
80°-90°	30.9	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°	1427.2	34.2
0°-40°	2210.2	53.0
0°-60°	3546.5	85.0
0°-90°	4172.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4172.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2009	2009	2009	2009	2009	
5°	2199	2100	2002	1884	1814	212
15°	2244	2172	1909	1549	1363	628
25°	1951	1956	1713	1130	908	898
35°	1594	1614	1457	793	660	995
45°	1210	1235	1166	577	493	935
55°	848	851	856	412	356	759
65°	511	494	536	268	243	506
75°	180	189	218	141	139	203
85°	17	16	18	24	24	27
90°	0	0	0	0	0	



TEST NUMBER: P210312

CATALOG NUMBER: PR840D010 - PR8M34WW - 3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2009.4	2009.4	2009.4	2009.4	2009.4	2009.4	2009.4	2009.4	2009.4
1°	2072.7	2035.9	2014.5	2032.9	2008.3	1984.8	1982.8	1973.6	1953.2
2°	2103.3	2064.5	2035.9	2043.1	2006.3	1969.5	1956.2	1934.8	1917.4
3°	2133.0	2093.1	2057.4	2053.3	2001.2	1953.2	1930.7	1902.1	1884.7
4°	2168.7	2122.8	2078.8	2065.5	2005.3	1940.9	1907.2	1869.4	1849.0
5°	2199.4	2153.4	2100.3	2074.7	2002.2	1927.6	1883.7	1836.7	1814.3
6°	2224.9	2175.9	2120.7	2086.0	2002.2	1911.3	1859.2	1802.0	1777.5
7°	2247.4	2196.3	2136.0	2093.1	1994.0	1892.9	1828.6	1766.2	1736.6
8°	2261.7	2211.6	2145.2	2095.2	1985.9	1871.5	1795.9	1725.4	1692.7
9°	2268.8	2222.9	2154.4	2093.1	1972.6	1848.0	1759.1	1681.5	1644.7
10°	2273.9	2230.0	2158.5	2092.1	1964.4	1824.5	1724.4	1636.5	1596.7
11°	2273.9	2231.0	2166.7	2090.1	1952.2	1799.9	1688.6	1591.6	1551.7
12°	2273.9	2230.0	2171.8	2090.1	1940.9	1777.5	1653.9	1547.6	1505.7
13°	2270.9	2231.0	2174.9	2092.1	1929.7	1754.0	1618.1	1502.7	1458.8
14°	2257.6	2229.0	2175.9	2090.1	1920.5	1735.6	1583.4	1458.8	1410.7
15°	2244.3	2216.7	2171.8	2088.0	1909.3	1711.1	1548.7	1412.8	1362.7
16°	2222.9	2199.4	2165.7	2082.9	1896.0	1686.6	1511.9	1366.8	1311.7
17°	2198.3	2176.9	2157.5	2073.7	1878.6	1658.0	1473.1	1318.8	1260.6
18°	2169.7	2154.4	2142.2	2061.5	1862.3	1627.3	1432.2	1268.7	1207.5
19°	2143.2	2126.8	2118.7	2050.2	1843.9	1597.7	1390.3	1218.7	1153.3
20°	2107.4	2095.2	2092.1	2033.9	1821.4	1563.0	1342.3	1166.6	1102.2
21°	2076.8	2068.6	2063.5	2016.5	1801.0	1533.3	1300.4	1114.5	1055.2
22°	2045.1	2038.0	2038.0	2002.2	1778.5	1501.7	1256.5	1068.5	1012.3
23°	2015.5	2006.3	2013.4	1981.8	1757.0	1472.0	1214.6	1024.6	975.6
24°	1985.9	1979.7	1984.8	1964.4	1735.6	1441.4	1172.7	987.8	939.8
25°	1951.1	1946.0	1956.2	1943.0	1713.1	1408.7	1129.8	953.1	908.1
26°	1920.5	1914.4	1926.6	1924.6	1692.7	1375.0	1087.9	919.4	878.5
27°	1885.8	1881.7	1893.9	1899.0	1668.2	1345.4	1047.1	888.7	850.9
28°	1856.1	1850.0	1862.3	1874.5	1644.7	1310.6	1008.3	859.1	823.4
29°	1815.3	1813.2	1826.5	1848.0	1619.1	1280.0	972.5	831.5	795.8
30°	1776.5	1778.5	1790.8	1821.4	1593.6	1247.3	938.8	805.0	771.3
32.5°	1682.5	1688.6	1703.9	1742.7	1526.2	1163.5	863.2	741.6	713.0
35°	1593.6	1592.6	1614.0	1656.9	1456.7	1080.8	792.7	685.5	659.9
37.5°	1497.6	1502.7	1522.1	1573.2	1389.3	1000.1	732.4	635.4	613.9
40°	1405.6	1412.8	1426.1	1482.3	1315.7	914.3	678.3	589.4	573.1
42.5°	1309.6	1318.8	1333.1	1389.3	1240.1	835.6	627.2	548.6	532.2
45°	1210.5	1221.8	1235.0	1294.3	1165.6	759.0	577.2	510.8	493.4
47.5°	1116.5	1122.7	1139.0	1199.3	1087.9	694.6	534.3	472.0	457.6
50°	1023.6	1029.7	1042.0	1103.3	1011.3	632.3	492.4	436.2	422.9
52.5°	934.7	938.8	945.9	1011.3	932.7	574.1	452.5	400.4	389.2
55°	847.9	849.9	850.9	916.3	856.0	517.9	411.7	366.7	356.5
57.5°	764.1	764.1	754.9	820.3	778.4	465.8	373.9	334.0	328.9
60°	681.4	681.4	670.1	727.3	697.7	415.8	337.1	303.4	296.2
62.5°	596.6	597.6	581.3	631.3	620.1	367.8	302.4	272.8	270.7
65°	510.8	511.8	494.4	538.4	536.3	320.8	267.6	244.1	243.1



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CATALOG NUMBER: PR840D010 - PR8M34WW - 3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	428.0	427.0	410.7	447.4	453.6	277.9	233.9	215.5	215.5
70°	345.3	345.3	331.0	357.5	368.8	231.9	200.2	188.0	189.0
72.5°	269.7	268.7	259.5	275.8	288.1	189.0	170.6	162.4	163.4
75°	179.8	190.0	189.0	204.3	217.6	150.2	141.0	136.9	138.9
77.5°	115.4	121.6	128.7	142.0	149.1	113.4	110.3	110.3	112.4
80°	71.5	74.6	80.7	87.9	93.0	78.7	81.7	84.8	87.9
82.5°	40.9	40.9	42.9	47.0	54.1	48.0	52.1	56.2	56.2
85°	17.4	17.4	16.3	16.3	18.4	20.4	23.5	24.5	23.5
87.5°	4.1	4.1	3.1	2.0	3.1	4.1	5.1	5.1	5.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)