

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P582519

Luminaire Tested: **HC640D010-HM63040930-61WWBB**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582519  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC640D010-HM63040930-61WWBB  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3609.2 lumens  
Efficiency: N/A  
Efficacy: 88.0 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.06 / 1.14  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

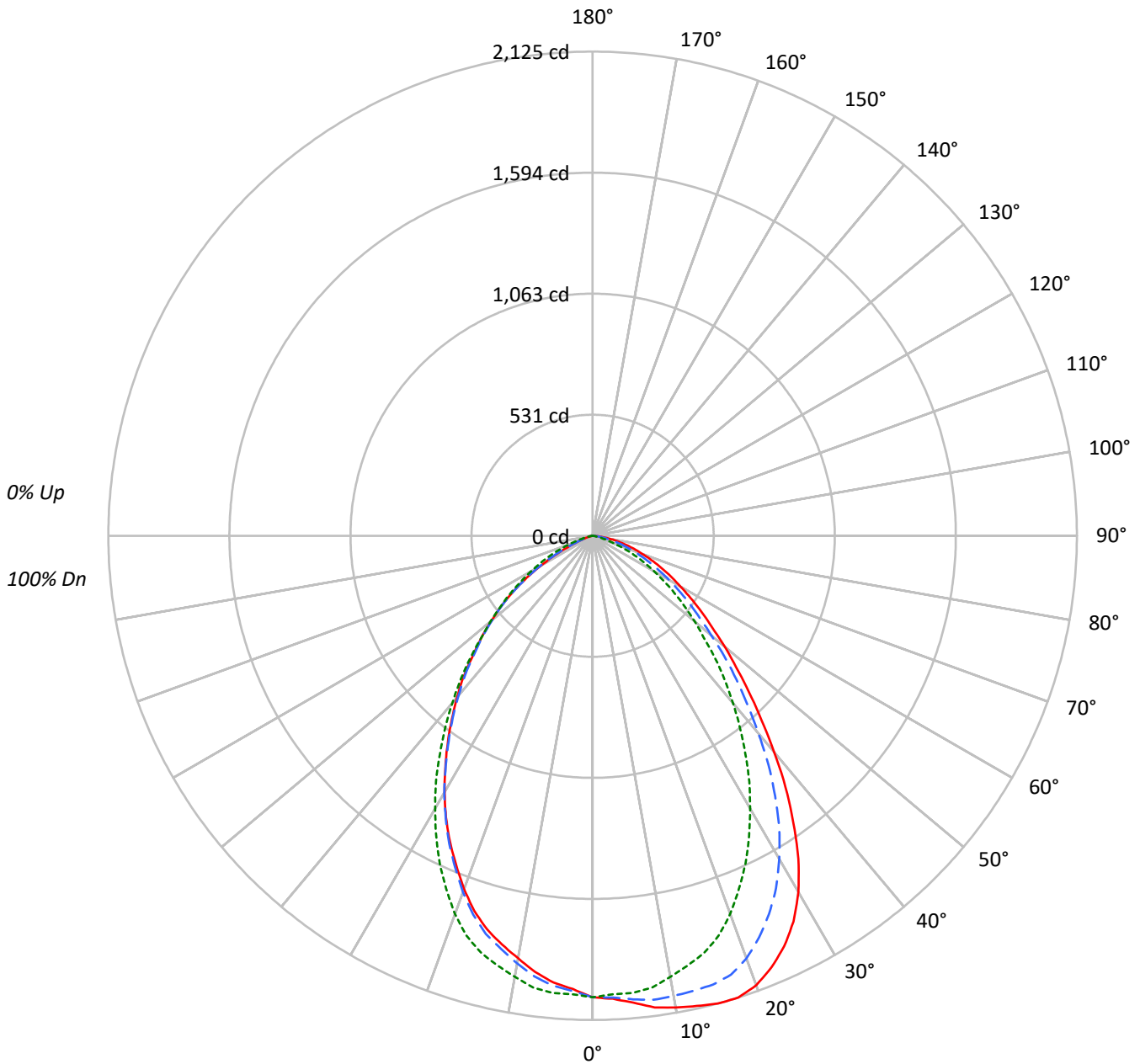
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89																			
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78																			
3	96	87	80	75	93	86	79	74	83	77	73	80	76	72	78	74	71	69																			
4	89	79	71	66	87	78	71	65	75	69	64	73	68	64	71	66	63	61																			
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54																			
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	49																			
7	72	60	52	47	70	59	52	47	58	51	46	56	51	46	55	50	46	44																			
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40																			
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37																			
10	60	48	40	36	58	47	40	36	46	40	36	45	40	35	45	39	35	34																			

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

	0°	90°	180°
0°	111027	111027	111027
5°	113174	110830	108315
10°	117021	109406	104813
15°	120602	107503	101522
20°	122470	103031	96218
25°	120267	95969	89594
30°	114321	87450	82228
35°	102747	78153	74157
40°	88673	68493	66253
45°	75085	58960	57417
50°	64382	49798	49312
55°	55807	41929	40295
60°	48724	34043	28737
65°	42858	26228	15890
70°	36977	17359	7758
75°	31369	8430	3008
80°	24277	3567	1799
85°	14341	1824	1824



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	191.1	5.3
10°-20°	540.5	15.0
20°-30°	761.1	21.1
30°-40°	777.6	21.5
40°-50°	627.0	17.4
50°-60°	420.5	11.7
60°-70°	212.8	5.9
70°-80°	68.0	1.9
80°-90°	10.5	0.3
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°	1492.7	41.4
0°-40°	2270.3	62.9
0°-60°	3317.8	91.9
0°-90°	3609.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3609.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2025	2025	2025	2025	2025	
5°	2057	2042	2014	1983	1968	198
15°	2125	2040	1894	1809	1789	600
25°	1988	1832	1587	1490	1481	910
35°	1535	1396	1168	1102	1108	955
45°	968	892	760	735	741	753
55°	584	518	439	419	422	525
65°	330	273	202	134	122	330
75°	148	105	40	14	14	159
85°	23	11	3	3	3	31
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°	2025.3	2025.3	2025.3	2025.3	2025.3	2025.3	2025.3	2025.3	2025.3
2.5°	2033.9	2031.0	2028.1	2022.4	2014.0	2005.4	1999.7	1993.9	1991.2
5°	2056.6	2050.9	2042.3	2031.0	2014.0	1993.9	1982.6	1971.2	1968.3
7.5°	2088.0	2076.6	2053.8	2028.1	1999.7	1971.2	1951.2	1939.9	1931.3
10°	2102.2	2082.3	2050.9	2008.2	1965.4	1931.3	1905.7	1888.5	1882.9
12.5°	2113.6	2090.9	2045.2	1988.3	1931.3	1885.8	1857.3	1843.0	1837.4
15°	2125.0	2102.2	2039.6	1965.4	1894.2	1840.1	1808.9	1794.6	1788.8
17.5°	2125.0	2093.6	2019.7	1925.6	1840.1	1774.6	1743.3	1729.1	1726.2
20°	2099.3	2065.2	1974.0	1863.0	1766.1	1692.0	1663.5	1654.9	1649.3
22.5°	2050.9	2011.1	1908.5	1783.2	1677.8	1606.5	1575.3	1569.6	1563.8
25°	1988.3	1948.4	1831.6	1697.7	1586.6	1515.4	1489.8	1484.1	1481.2
27.5°	1908.5	1865.9	1743.3	1606.5	1486.9	1418.6	1395.8	1395.8	1393.0
30°	1806.0	1757.6	1637.9	1501.2	1381.5	1318.9	1301.7	1301.7	1299.0
32.5°	1680.7	1632.3	1524.0	1393.0	1279.0	1213.5	1199.2	1204.9	1202.1
35°	1535.3	1495.5	1395.8	1267.6	1167.8	1108.1	1102.4	1108.1	1108.1
37.5°	1390.1	1353.0	1267.6	1156.5	1062.5	1008.4	1008.4	1016.9	1014.0
40°	1239.1	1210.6	1130.9	1034.0	957.1	920.1	914.3	922.9	925.8
42.5°	1096.7	1073.9	1005.5	925.8	857.4	820.4	828.9	834.7	837.4
45°	968.5	945.7	891.6	808.9	760.5	734.9	734.9	743.5	740.6
47.5°	854.6	837.4	783.4	703.6	660.8	649.5	655.1	660.8	660.8
50°	754.9	729.3	678.0	615.3	583.9	569.7	575.3	578.2	578.2
52.5°	660.8	643.8	592.5	535.5	507.0	498.5	498.5	501.4	501.4
55°	583.9	564.0	518.5	461.5	438.7	427.2	418.8	415.9	421.6
57.5°	509.9	492.8	450.0	396.0	370.4	358.9	341.9	336.1	341.9
60°	444.4	430.1	387.4	336.1	310.5	287.7	267.8	256.4	262.1
62.5°	387.4	370.4	327.6	284.9	256.4	230.7	199.4	182.3	190.9
65°	330.4	316.2	273.4	230.7	202.2	170.9	133.9	122.5	122.5
67.5°	279.1	264.9	225.0	188.0	153.8	116.7	82.6	79.8	82.6
70°	230.7	216.4	182.3	145.2	108.3	71.2	48.4	48.4	48.4
72.5°	190.9	173.7	142.5	105.4	68.3	37.1	25.6	28.5	28.5
75°	148.1	133.9	105.4	71.2	39.8	17.1	14.2	14.2	14.2
77.5°	111.1	99.7	74.1	45.6	19.9	5.7	5.7	5.7	5.7
80°	76.9	65.6	48.4	28.5	11.3	5.7	5.7	5.7	5.7
82.5°	45.6	39.8	28.5	14.2	5.7	2.9	2.9	2.9	2.9
85°	22.8	19.9	11.3	5.7	2.9	2.9	2.9	2.9	2.9
87.5°	5.7	5.7	2.9	2.9	0.0	2.9	2.9	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)