

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: P593249

Luminaire Tested: **HC635D010-HM63040850-61WWWB**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593249  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-18)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC635D010-HM63040850-61WWWB  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4077.2 lumens  
Efficiency: N/A  
Efficacy: 121.0 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.09 / 1.17  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

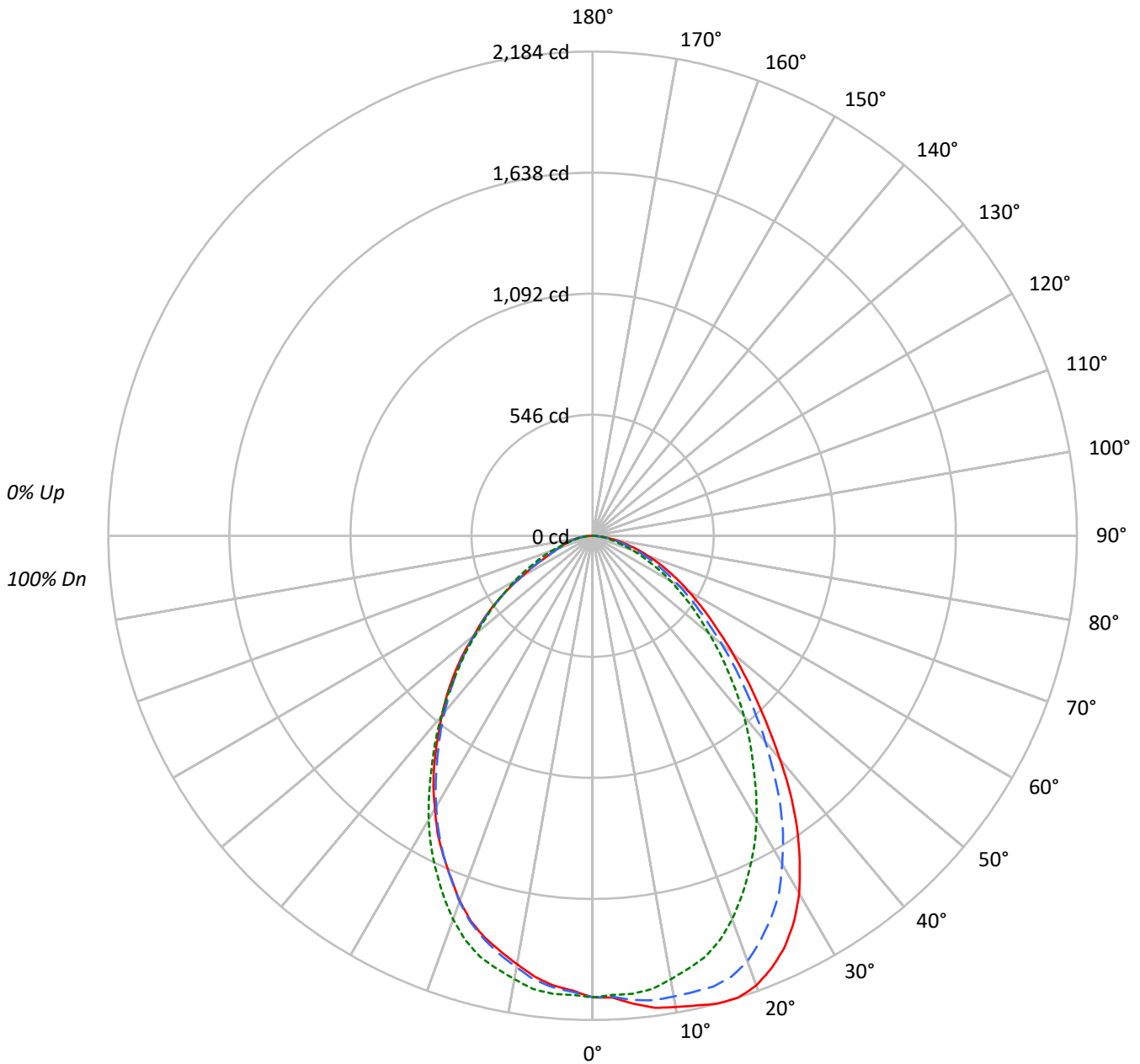
Input Watts (W): 33.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	107	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76																			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66																			
4	87	77	69	63	85	75	68	63	73	67	62	71	65	61	69	64	60	58																			
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52																			
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46																			
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42																			
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38																			
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34																			
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	31																			

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

	0°	90°	180°
0°	114130	114130	114130
5°	116602	114098	112062
10°	120166	113046	109244
15°	123973	111539	106539
20°	125935	107354	102209
25°	123872	100984	96338
30°	117930	93616	90020
35°	107545	84510	83185
40°	94033	75921	75513
45°	80931	66813	68356
50°	70343	58216	59427
55°	61436	51105	51649
60°	54568	44284	40534
65°	48695	37267	30989
70°	42860	30550	25982
75°	36749	24104	24697
80°	29612	20678	24246
85°	19687	17926	21449



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	197.1	4.8
10°-20°	561.2	13.8
20°-30°	801.1	19.6
30°-40°	839.1	20.6
40°-50°	706.5	17.3
50°-60°	502.8	12.3
60°-70°	294.3	7.2
70°-80°	139.3	3.4
80°-90°	35.8	0.9
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°	1559.4	38.2
0°-40°	2398.5	58.8
0°-60°	3607.8	88.5
0°-90°	4077.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4077.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2082	2082	2082	2082	2082	
5°	2119	2102	2073	2045	2036	204
15°	2184	2105	1965	1886	1877	617
25°	2048	1903	1670	1590	1593	937
35°	1607	1473	1263	1220	1243	998
45°	1044	967	862	865	882	810
55°	643	589	535	535	540	579
65°	375	333	287	242	239	374
75°	174	145	114	111	117	186
85°	31	26	28	34	34	41
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°	2081.9	2081.9	2081.9	2081.9	2081.9	2081.9	2081.9	2081.9	2081.9
2.5°	2084.8	2084.8	2081.9	2079.1	2073.4	2064.9	2059.2	2053.6	2053.6
5°	2118.9	2113.2	2101.9	2087.6	2073.4	2056.4	2044.9	2036.4	2036.4
7.5°	2147.4	2136.0	2113.2	2087.6	2062.1	2039.3	2019.4	2008.1	2005.1
10°	2158.7	2144.5	2110.4	2070.6	2030.8	1999.5	1976.8	1962.5	1962.5
12.5°	2170.2	2153.1	2107.6	2050.7	1999.5	1956.8	1934.1	1922.6	1919.8
15°	2184.4	2161.6	2104.7	2033.6	1965.3	1917.0	1885.8	1877.2	1877.2
17.5°	2184.4	2155.9	2084.8	1996.6	1911.3	1857.3	1828.8	1820.3	1823.1
20°	2158.7	2127.4	2042.1	1934.1	1840.2	1783.3	1754.9	1749.2	1752.0
22.5°	2110.4	2073.4	1976.8	1860.1	1757.7	1698.0	1672.4	1672.4	1669.5
25°	2047.9	2008.1	1902.8	1780.5	1669.5	1609.9	1589.9	1592.7	1592.7
27.5°	1965.3	1925.6	1820.3	1689.5	1578.5	1518.9	1504.6	1510.3	1513.1
30°	1863.0	1820.3	1709.4	1581.4	1478.9	1419.3	1410.8	1419.3	1422.1
32.5°	1737.8	1706.5	1598.4	1467.6	1370.9	1319.8	1316.8	1325.4	1336.8
35°	1607.0	1572.9	1473.3	1353.8	1262.8	1220.2	1220.2	1234.3	1243.0
37.5°	1464.8	1430.6	1339.6	1240.1	1163.3	1123.5	1129.2	1143.4	1146.2
40°	1314.0	1288.5	1211.6	1126.3	1060.9	1029.6	1038.2	1052.4	1055.2
42.5°	1171.8	1149.0	1086.5	1009.7	961.4	938.6	949.9	967.0	972.7
45°	1043.9	1018.2	967.0	901.6	861.8	850.4	864.6	876.1	881.7
47.5°	927.2	904.4	861.8	802.1	773.6	767.9	782.1	787.8	793.6
50°	824.8	802.1	759.4	705.3	682.6	682.6	694.0	699.7	696.8
52.5°	725.3	705.3	665.5	620.0	605.8	605.8	614.3	617.2	622.8
55°	642.8	622.8	588.8	546.0	534.7	529.0	534.7	534.7	540.4
57.5°	566.0	549.0	517.7	477.8	463.6	457.9	455.1	452.2	457.9
60°	497.7	483.5	449.4	415.2	403.9	389.7	378.2	366.9	369.7
62.5°	435.2	420.9	389.7	355.6	344.1	324.2	310.1	295.8	301.4
65°	375.4	361.2	332.8	304.4	287.3	264.6	241.8	233.3	238.9
67.5°	321.4	310.1	281.6	253.1	238.9	213.3	190.6	190.6	193.4
70°	267.4	255.9	233.3	207.6	190.6	167.8	159.3	162.1	162.1
72.5°	219.0	210.5	187.8	165.0	147.9	133.6	133.6	136.5	139.3
75°	173.5	167.8	145.1	125.1	113.8	105.3	111.0	113.8	116.6
77.5°	133.6	125.1	108.1	93.8	85.3	88.2	93.8	96.7	99.5
80°	93.8	91.0	76.8	68.3	65.5	68.3	74.0	76.8	76.8
82.5°	59.8	56.8	48.3	45.5	45.5	48.3	54.0	54.0	54.0
85°	31.3	28.5	25.6	25.6	28.5	31.3	34.1	34.1	34.1
87.5°	11.3	8.5	11.3	11.3	14.2	14.2	14.2	14.2	14.2
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)