

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: P582315

Luminaire Tested: **HC635D010-HM63040835-61RWWH**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582315  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-15)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC635D010-HM63040835-61RWWH  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4048.3 lumens  
Efficiency: N/A  
Efficacy: 120.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.19  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

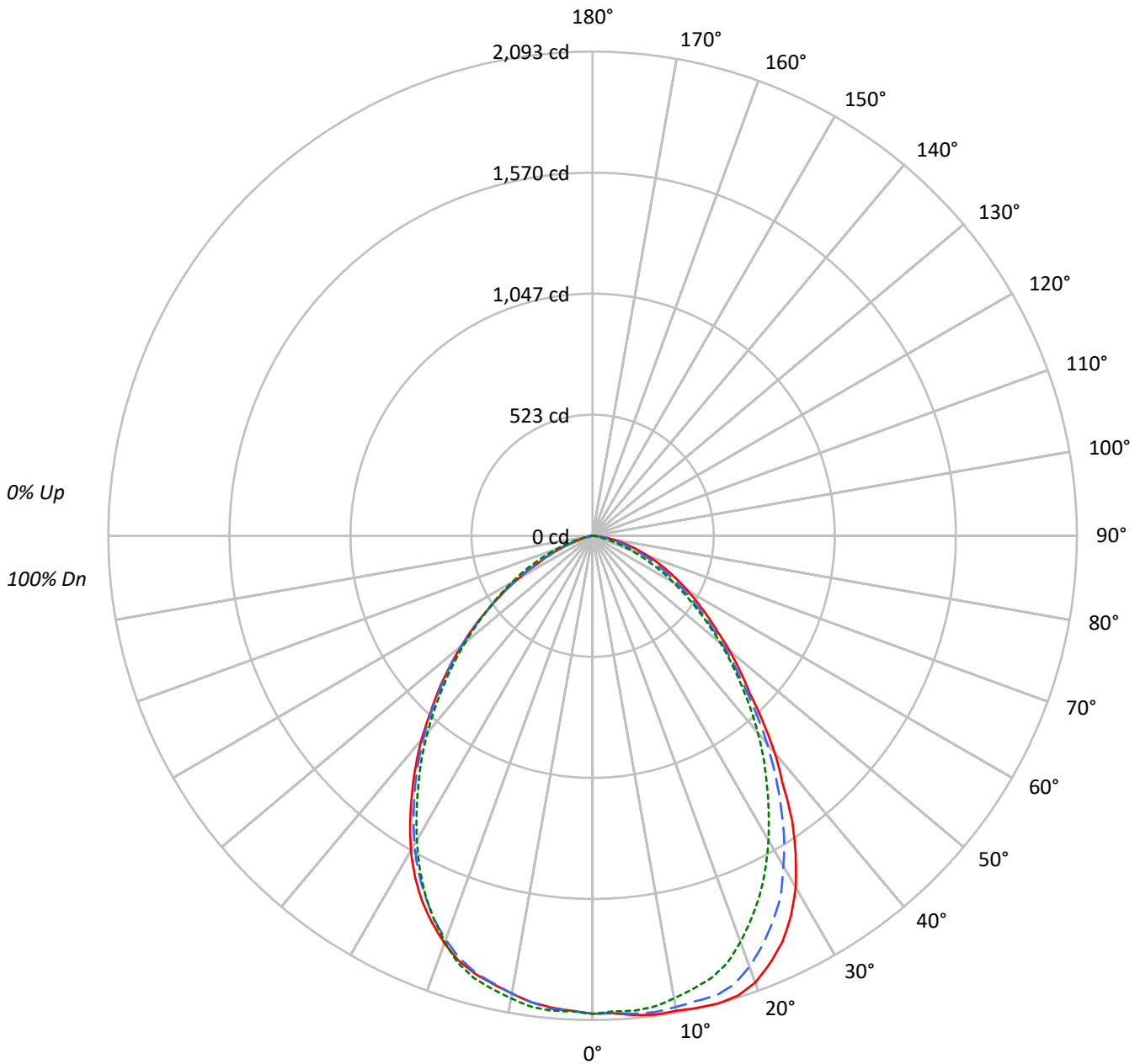
Input Watts (W): 33.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88			
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77			
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67			
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59			
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53			
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47			
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42			
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35			
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32			

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

	0°	90°	180°
0°	113264	113264	113264
5°	114440	113394	112646
10°	116063	113046	111838
15°	118792	112333	111261
20°	119897	108999	109309
25°	117267	103512	105478
30°	111068	96160	99414
35°	100579	87883	91149
40°	87586	79449	82354
45°	74318	70325	72845
50°	65814	61431	63043
55°	57967	52538	52280
60°	51948	44229	40677
65°	46373	35464	29160
70°	40792	25613	18240
75°	34398	15483	10336
80°	26487	6851	4262
85°	15347	1698	1698



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	196.1	4.8
10°-20°	563.6	13.9
20°-30°	814.8	20.1
30°-40°	857.3	21.2
40°-50°	720.7	17.8
50°-60°	505.8	12.5
60°-70°	278.3	6.9
70°-80°	98.8	2.4
80°-90°	12.9	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°	1574.5	38.9
0°-40°	2431.8	60.1
0°-60°	3658.3	90.4
0°-90°	4048.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4048.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2066	2066	2066	2066	2066	
5°	2080	2074	2061	2052	2047	199
15°	2093	2058	1979	1955	1960	591
25°	1939	1841	1711	1714	1744	887
35°	1503	1416	1313	1340	1362	931
45°	959	932	907	929	940	752
55°	606	574	550	550	547	546
65°	358	320	273	225	225	356
75°	162	130	73	49	49	174
85°	24	14	3	3	3	34
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°	2066.1	2066.1	2066.1	2066.1	2066.1	2066.1	2066.1	2066.1	2066.1
2.5°	2066.1	2066.1	2063.3	2063.3	2057.9	2057.9	2055.2	2055.2	2055.2
5°	2079.6	2079.6	2074.1	2066.1	2060.6	2052.5	2052.5	2049.7	2047.0
7.5°	2087.6	2085.0	2076.8	2066.1	2052.5	2039.0	2033.5	2036.2	2033.5
10°	2085.0	2079.6	2068.7	2047.0	2030.8	2011.9	2009.1	2006.4	2009.1
12.5°	2090.3	2082.3	2060.6	2033.5	2006.4	1984.8	1982.0	1982.0	1984.8
15°	2093.1	2085.0	2057.9	2017.3	1979.3	1957.8	1955.0	1957.8	1960.4
17.5°	2085.0	2074.1	2033.5	1979.3	1936.1	1914.3	1914.3	1919.8	1925.2
20°	2055.2	2039.0	1982.0	1917.1	1868.4	1852.1	1857.5	1868.4	1873.7
22.5°	2001.1	1982.0	1917.1	1844.0	1792.5	1779.0	1792.5	1806.0	1811.5
25°	1938.7	1917.1	1841.3	1765.4	1711.3	1695.1	1714.0	1735.7	1743.8
27.5°	1854.8	1830.4	1760.1	1673.4	1619.2	1611.2	1632.7	1657.1	1662.5
30°	1754.6	1727.5	1649.0	1567.7	1519.1	1516.4	1540.7	1562.4	1570.5
32.5°	1632.7	1608.4	1540.7	1459.5	1416.2	1416.2	1440.5	1459.5	1467.6
35°	1502.9	1475.7	1416.2	1348.5	1313.2	1316.0	1340.3	1353.8	1362.0
37.5°	1348.5	1340.3	1294.3	1237.5	1213.1	1218.5	1237.5	1248.2	1256.4
40°	1223.9	1202.2	1172.5	1126.4	1110.2	1115.7	1134.6	1145.4	1150.8
42.5°	1088.5	1074.9	1050.7	1018.1	1007.2	1015.4	1031.6	1039.8	1037.1
45°	958.6	955.9	931.5	912.5	907.1	918.0	928.8	936.9	939.6
47.5°	863.8	853.0	831.3	817.7	812.3	823.2	833.9	839.4	839.4
50°	771.7	760.9	739.2	725.6	720.3	731.1	739.2	744.7	739.2
52.5°	679.7	668.8	649.9	633.6	630.9	636.4	639.0	641.7	647.1
55°	606.5	595.8	574.0	555.1	549.7	552.3	549.7	549.7	547.0
57.5°	536.1	525.3	503.7	482.0	473.8	471.1	463.1	460.3	457.6
60°	473.8	460.3	438.7	414.3	403.4	392.6	379.0	371.0	371.0
62.5°	414.3	400.7	376.4	354.8	338.4	319.5	297.8	287.0	287.0
65°	357.5	346.6	319.5	295.1	273.4	249.2	224.8	219.3	224.8
67.5°	303.3	292.5	265.4	241.0	213.9	184.2	162.4	162.4	167.9
70°	254.5	243.7	219.3	189.5	159.8	130.0	113.8	113.8	113.8
72.5°	208.5	197.7	170.6	143.5	113.8	83.9	75.9	78.5	75.9
75°	162.4	154.4	130.0	100.2	73.1	51.5	48.8	46.0	48.8
77.5°	121.8	113.8	92.1	65.0	40.6	29.8	27.1	27.1	27.1
80°	83.9	75.9	59.5	37.9	21.7	13.5	13.5	13.5	13.5
82.5°	51.5	43.3	32.4	18.9	8.2	8.2	8.2	8.2	8.2
85°	24.4	18.9	13.5	5.4	2.7	2.7	2.7	2.7	2.7
87.5°	5.4	5.4	2.7	2.7	0.0	2.7	2.7	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)