

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: P593284

Luminaire Tested: **HC640D010-HM63040850-61WWW**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P593284
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC640D010-HM63040850-61WWW
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4572.7 lumens
Efficiency: N/A
Efficacy: 111.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1.06 / 1.14
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

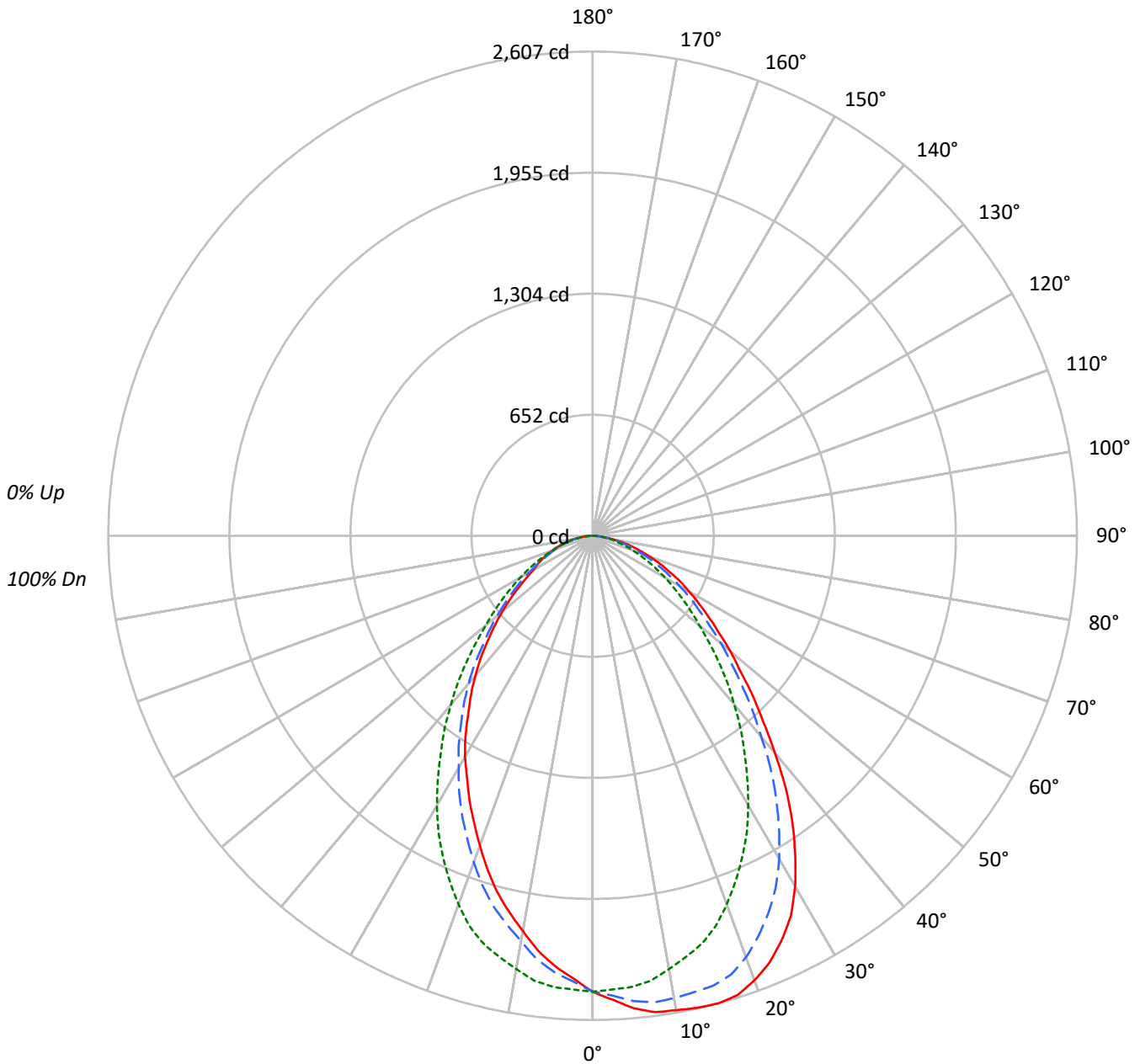
Input Watts (W): 41
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	100	100	100
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87	87	87	87
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76	76	76	76
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66	66	66	66
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58	58	58	58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51	51	51	51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46	46	46	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42	42	42	42
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38	38	38	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34	34	34	34
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32	32	32	32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	134573	134573	134573
5°	140535	134179	127993
10°	144369	131867	120277
15°	147941	129002	112691
20°	148605	123164	103504
25°	145484	115313	94923
30°	138034	106029	87001
35°	125360	95298	78052
40°	109226	84873	70217
45°	94521	74279	61735
50°	82556	63964	54096
55°	72944	56208	46421
60°	65565	49272	40205
65°	58722	42858	38993
70°	52429	36529	36529
75°	45475	30797	34271
80°	36526	26077	31286
85°	24971	22895	27047



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.7	5.0
10°-20°	641.3	14.0
20°-30°	893.8	19.5
30°-40°	920.9	20.1
40°-50°	763.2	16.7
50°-60°	548.5	12.0
60°-70°	349.3	7.6
70°-80°	179.4	3.9
80°-90°	45.6	1.0
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°	1765.8	38.6
0°-40°	2686.7	58.8
0°-60°	3998.4	87.4
0°-90°	4572.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4572.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2455	2455	2455	2455	2455	
5°	2554	2514	2438	2359	2326	245
15°	2607	2508	2273	2065	1986	735
25°	2405	2240	1906	1662	1569	1102
35°	1873	1721	1424	1236	1166	1164
45°	1219	1133	958	836	796	944
55°	763	700	588	522	486	687
65°	453	403	330	287	301	453
75°	215	185	145	152	162	229
85°	40	36	36	40	43	51
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°	2454.8	2454.8	2454.8	2454.8	2454.8	2454.8	2454.8	2454.8	2454.8
2.5°	2501.0	2491.1	2477.9	2464.7	2444.9	2421.7	2401.9	2395.3	2385.4
5°	2553.8	2540.7	2514.3	2481.2	2438.3	2395.3	2358.9	2335.8	2325.9
7.5°	2587.0	2570.3	2534.1	2477.9	2415.1	2352.3	2299.4	2266.4	2253.2
10°	2593.5	2577.1	2527.5	2451.5	2368.9	2282.9	2216.8	2177.3	2160.7
12.5°	2603.4	2580.4	2517.6	2428.3	2322.6	2223.4	2140.9	2091.3	2074.8
15°	2606.7	2580.4	2507.7	2398.6	2273.0	2154.1	2064.9	2005.4	1985.6
17.5°	2593.5	2563.7	2477.9	2345.7	2203.7	2078.1	1972.4	1909.6	1883.1
20°	2547.3	2514.3	2415.1	2266.4	2111.2	1979.0	1869.9	1803.9	1774.2
22.5°	2487.8	2444.9	2332.5	2174.0	2012.0	1873.2	1764.3	1698.2	1668.4
25°	2405.2	2365.5	2240.1	2071.5	1906.4	1761.0	1661.8	1592.4	1569.3
27.5°	2309.4	2263.1	2134.3	1965.8	1797.3	1651.9	1556.2	1493.4	1463.6
30°	2180.6	2137.6	2008.7	1840.3	1675.0	1539.5	1440.5	1387.6	1374.4
32.5°	2028.6	1992.2	1866.6	1708.1	1549.6	1424.0	1341.4	1285.2	1272.0
35°	1873.2	1830.4	1721.3	1572.6	1424.0	1311.6	1235.6	1186.0	1166.3
37.5°	1704.8	1665.1	1572.6	1440.5	1308.3	1202.7	1136.6	1093.6	1073.8
40°	1526.3	1496.7	1410.8	1305.0	1186.0	1093.6	1037.4	1001.1	981.2
42.5°	1361.2	1331.4	1272.0	1172.9	1073.8	991.1	941.6	908.5	892.0
45°	1219.2	1192.6	1133.3	1047.3	958.1	888.7	835.9	812.8	796.3
47.5°	1077.1	1063.8	1011.0	931.7	849.0	789.7	753.3	726.9	713.6
50°	968.0	951.5	901.9	819.4	750.0	703.7	670.7	647.5	634.3
52.5°	855.6	839.1	793.0	723.6	667.4	624.4	591.4	571.5	558.3
55°	763.2	750.0	700.4	637.6	588.1	551.7	522.1	498.8	485.7
57.5°	677.3	664.1	617.8	558.3	515.5	482.4	456.0	436.1	419.6
60°	598.0	588.1	541.8	485.7	449.4	416.3	393.2	376.6	366.7
62.5°	528.7	508.7	469.2	419.6	386.6	360.1	337.0	327.1	333.7
65°	452.7	442.7	403.1	360.1	330.4	303.9	287.4	294.0	300.6
67.5°	389.9	376.6	343.6	303.9	277.5	257.7	247.8	261.0	264.3
70°	327.1	313.9	284.1	251.1	227.9	214.7	214.7	224.6	227.9
72.5°	267.6	257.7	231.2	204.8	188.4	178.5	185.1	191.7	194.9
75°	214.7	204.8	185.1	161.8	145.4	145.4	151.9	158.5	161.8
77.5°	165.1	158.5	138.8	122.3	115.7	115.7	122.3	125.6	128.9
80°	115.7	109.1	99.1	89.2	82.6	89.2	95.8	95.8	99.1
82.5°	76.0	72.7	66.1	59.5	59.5	62.8	66.1	69.4	69.4
85°	39.7	39.7	36.4	33.0	36.4	39.7	39.7	43.0	43.0
87.5°	13.2	13.2	13.2	13.2	16.5	16.5	16.5	16.5	16.5
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)