

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: P582449

Luminaire Tested: **HC640D010-HM63040830-61WWWB**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582449
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: HC640D010-HM63040830-61WWWB
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4342.1 lumens
Efficiency: N/A
Efficacy: 105.9 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

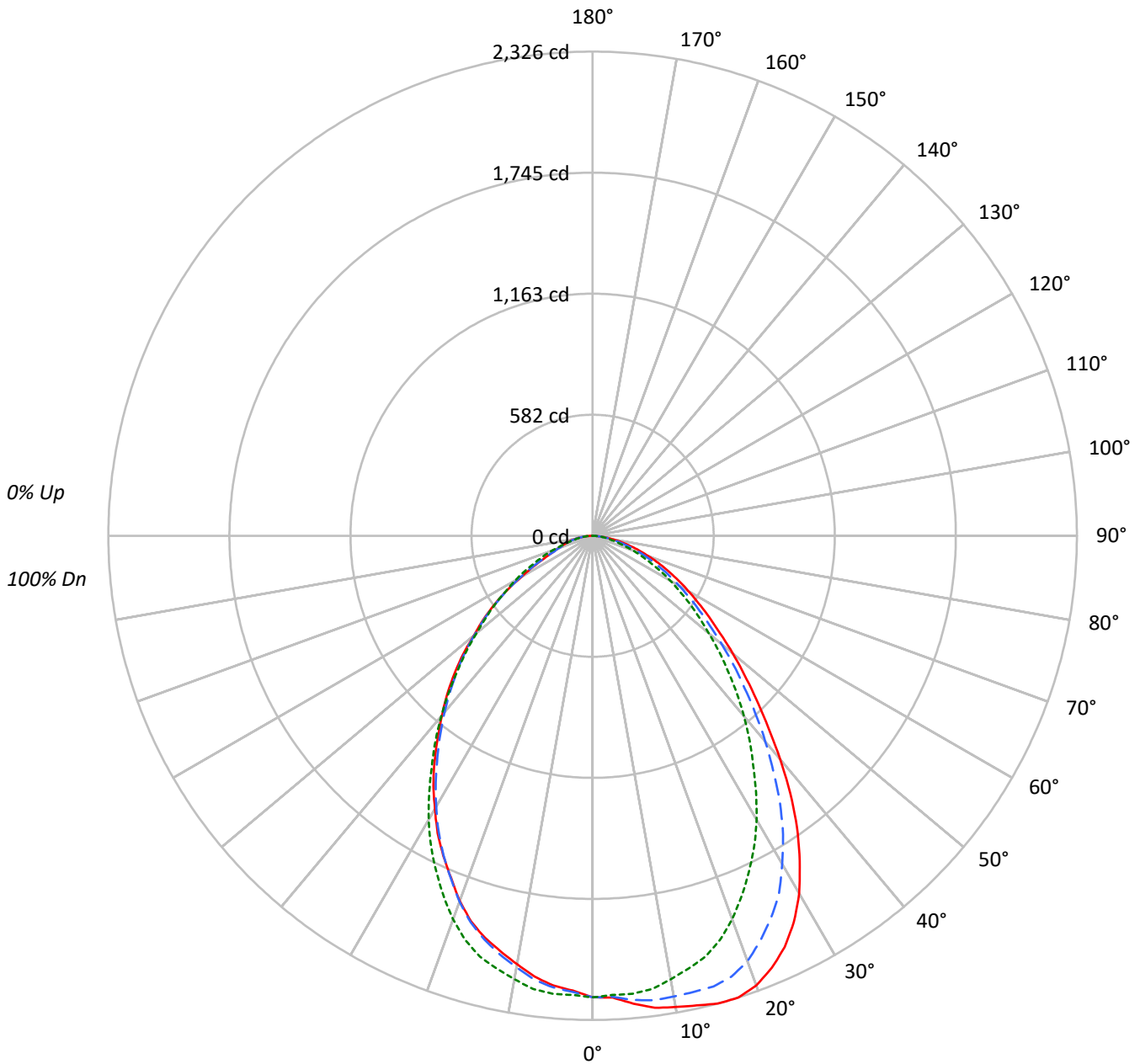
Input Watts (W): 41
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	121547	121547	121547
5°	124174	121511	119348
10°	127976	120394	116342
15°	132027	118786	113463
20°	134120	114332	108854
25°	131911	107547	102599
30°	125589	99699	95869
35°	114532	90005	88579
40°	100152	80859	80422
45°	86187	71155	72798
50°	74923	61994	63290
55°	65431	54421	55004
60°	58120	47156	43165
65°	51860	39680	33000
70°	45649	32538	27681
75°	39142	25671	26307
80°	31570	21972	25824
85°	21008	19058	22895



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.9	4.8
10°-20°	597.6	13.8
20°-30°	853.1	19.6
30°-40°	893.6	20.6
40°-50°	752.4	17.3
50°-60°	535.5	12.3
60°-70°	313.4	7.2
70°-80°	148.3	3.4
80°-90°	38.2	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°	1660.7	38.2
0°-40°	2554.3	58.8
0°-60°	3842.2	88.5
0°-90°	4342.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4342.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2217	2217	2217	2217	2217	
5°	2256	2238	2208	2178	2169	217
15°	2326	2242	2093	2008	1999	657
25°	2181	2026	1778	1693	1696	998
35°	1711	1569	1345	1300	1324	1063
45°	1112	1030	918	921	939	863
55°	685	627	569	569	576	617
65°	400	354	306	258	254	399
75°	185	154	121	118	124	198
85°	33	27	30	36	36	43
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°	2217.2	2217.2	2217.2	2217.2	2217.2	2217.2	2217.2	2217.2	2217.2
2.5°	2220.3	2220.3	2217.2	2214.2	2208.1	2199.0	2193.0	2186.9	2186.9
5°	2256.5	2250.6	2238.5	2223.3	2208.1	2189.9	2177.8	2168.8	2168.8
7.5°	2286.9	2274.7	2250.6	2223.3	2196.0	2171.7	2150.6	2138.5	2135.5
10°	2299.0	2283.8	2247.6	2205.1	2162.8	2129.4	2105.1	2090.0	2090.0
12.5°	2311.2	2292.9	2244.5	2183.9	2129.4	2084.0	2059.8	2047.6	2044.6
15°	2326.3	2302.1	2241.5	2165.8	2093.0	2041.5	2008.2	1999.2	1999.2
17.5°	2326.3	2296.0	2220.3	2126.4	2035.5	1978.0	1947.6	1938.5	1941.6
20°	2299.0	2265.6	2174.8	2059.8	1959.8	1899.2	1868.9	1862.8	1865.9
22.5°	2247.6	2208.1	2105.1	1981.0	1871.9	1808.3	1781.0	1781.0	1778.0
25°	2180.8	2138.5	2026.4	1896.2	1778.0	1714.4	1693.2	1696.2	1696.2
27.5°	2093.0	2050.6	1938.5	1799.2	1681.1	1617.5	1602.3	1608.4	1611.4
30°	1984.0	1938.5	1820.5	1684.1	1575.0	1511.4	1502.3	1511.4	1514.5
32.5°	1850.7	1817.5	1702.3	1563.0	1460.0	1405.4	1402.5	1411.5	1423.6
35°	1711.4	1675.0	1569.1	1441.8	1344.9	1299.5	1299.5	1314.6	1323.6
37.5°	1560.0	1523.6	1426.6	1320.6	1238.8	1196.5	1202.5	1217.7	1220.7
40°	1399.5	1372.2	1290.4	1199.5	1129.9	1096.5	1105.6	1120.8	1123.8
42.5°	1247.9	1223.8	1157.0	1075.2	1023.8	999.5	1011.7	1029.9	1035.9
45°	1111.7	1084.3	1029.9	960.2	917.8	905.6	920.8	932.9	939.0
47.5°	987.4	963.3	917.8	854.2	823.8	817.8	832.9	839.0	845.1
50°	878.5	854.2	808.7	751.2	726.9	726.9	739.0	745.1	742.1
52.5°	772.4	751.2	708.8	660.3	645.1	645.1	654.2	657.3	663.3
55°	684.6	663.3	627.1	581.5	569.4	563.3	569.4	569.4	575.5
57.5°	602.8	584.6	551.3	508.9	493.7	487.6	484.6	481.6	487.6
60°	530.1	514.9	478.5	442.3	430.1	415.0	402.8	390.7	393.7
62.5°	463.5	448.3	415.0	378.7	366.6	345.3	330.1	315.0	321.0
65°	399.8	384.6	354.4	324.1	305.9	281.7	257.5	248.4	254.4
67.5°	342.3	330.1	299.8	269.6	254.4	227.1	203.0	203.0	206.0
70°	284.8	272.6	248.4	221.1	203.0	178.7	169.6	172.7	172.7
72.5°	233.2	224.1	200.0	175.7	157.5	142.3	142.3	145.4	148.4
75°	184.8	178.7	154.5	133.2	121.2	112.1	118.2	121.2	124.2
77.5°	142.3	133.2	115.1	100.0	90.9	93.9	100.0	103.0	106.0
80°	100.0	96.9	81.8	72.7	69.6	72.7	78.7	81.8	81.8
82.5°	63.6	60.5	51.4	48.4	48.4	51.4	57.5	57.5	57.5
85°	33.4	30.3	27.3	27.3	30.3	33.4	36.4	36.4	36.4
87.5°	12.1	9.1	12.1	12.1	15.2	15.2	15.2	15.2	15.2
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)