

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: P593303

Luminaire Tested: **HC640D010-HM63040950-61WWWB**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P593303
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-HM63040950-61WWWB
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4128.6 lumens
Efficiency: N/A
Efficacy: 100.7 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

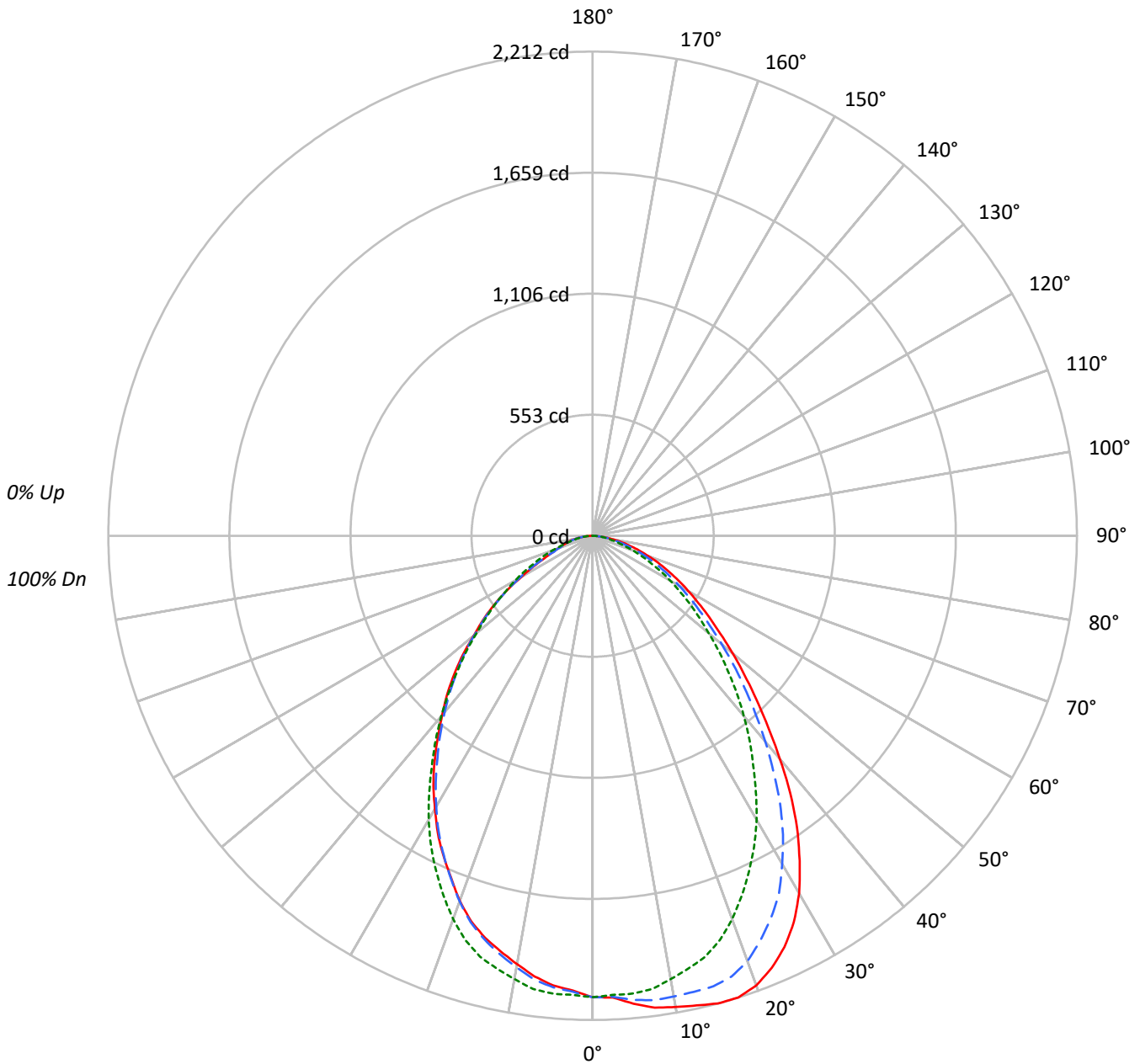
Input Watts (W): 41
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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				
1	111	107	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				76				
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66				66				
4	87	77	69	63	85	75	68	63	73	67	62	71	65	61	69	64	60	58				58				
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52				52				
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46				46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42				42				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				34				
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	31				31				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	115572	115572	115572
5°	118071	115540	113476
10°	121686	114466	110619
15°	125529	112946	107878
20°	127528	108708	103504
25°	125427	102260	97560
30°	119411	94799	91160
35°	108904	85581	84229
40°	95221	76880	76465
45°	81946	67658	69216
50°	71230	58949	60186
55°	62210	51745	52309
60°	55259	44843	41060
65°	49305	37721	31378
70°	43405	30935	26319
75°	37215	24379	25015
80°	30023	20899	24561
85°	19939	18115	21763



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.6	4.8
10°-20°	568.2	13.8
20°-30°	811.2	19.6
30°-40°	849.7	20.6
40°-50°	715.4	17.3
50°-60°	509.2	12.3
60°-70°	298.0	7.2
70°-80°	141.0	3.4
80°-90°	36.3	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°	1579.0	38.2
0°-40°	2428.7	58.8
0°-60°	3653.3	88.5
0°-90°	4128.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4128.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2108	2108	2108	2108	2108	
5°	2146	2128	2100	2071	2062	206
15°	2212	2131	1990	1910	1901	624
25°	2074	1927	1691	1610	1613	949
35°	1627	1492	1279	1236	1259	1011
45°	1057	979	873	876	893	821
55°	651	596	541	541	547	587
65°	380	337	291	245	242	379
75°	176	147	115	112	118	189
85°	32	26	29	35	35	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°	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2	2108.2
2.5°	2111.1	2111.1	2108.2	2105.4	2099.6	2090.9	2085.2	2079.4	2079.4
5°	2145.6	2139.9	2128.3	2114.0	2099.6	2082.3	2070.8	2062.1	2062.1
7.5°	2174.5	2162.9	2139.9	2114.0	2088.1	2065.0	2044.8	2033.4	2030.5
10°	2186.0	2171.6	2137.0	2096.7	2056.3	2024.7	2001.7	1987.2	1987.2
12.5°	2197.5	2180.2	2134.1	2076.5	2024.7	1981.5	1958.5	1947.0	1944.1
15°	2211.8	2188.9	2131.2	2059.2	1990.1	1941.2	1909.5	1900.8	1900.8
17.5°	2211.8	2183.1	2111.1	2021.8	1935.4	1880.6	1851.9	1843.3	1846.1
20°	2186.0	2154.3	2067.9	1958.5	1863.4	1805.8	1777.0	1771.3	1774.2
22.5°	2137.0	2099.6	2001.7	1883.5	1779.9	1719.4	1693.5	1693.5	1690.6
25°	2073.6	2033.4	1926.8	1802.9	1690.6	1630.2	1610.0	1612.9	1612.9
27.5°	1990.1	1949.7	1843.3	1710.7	1598.5	1538.0	1523.6	1529.4	1532.2
30°	1886.4	1843.3	1730.9	1601.3	1497.6	1437.2	1428.5	1437.2	1440.1
32.5°	1759.7	1728.0	1618.5	1486.1	1388.2	1336.4	1333.5	1342.1	1353.7
35°	1627.3	1592.7	1491.9	1371.0	1278.8	1235.5	1235.5	1250.0	1258.6
37.5°	1483.2	1448.7	1356.5	1255.7	1178.0	1137.6	1143.4	1157.8	1160.7
40°	1330.6	1304.6	1226.9	1140.5	1074.3	1042.5	1051.2	1065.6	1068.5
42.5°	1186.6	1163.5	1100.2	1022.5	973.4	950.5	961.9	979.2	985.0
45°	1057.0	1031.1	979.2	913.0	872.7	861.2	875.6	887.0	892.8
47.5°	938.9	915.9	872.7	812.2	783.4	777.7	792.1	797.7	803.5
50°	835.2	812.2	769.0	714.2	691.2	691.2	702.8	708.4	705.7
52.5°	734.4	714.2	673.9	627.8	613.5	613.5	622.0	624.9	630.7
55°	650.9	630.7	596.2	552.9	541.4	535.6	541.4	541.4	547.3
57.5°	573.1	555.8	524.2	483.8	469.4	463.6	460.9	458.0	463.6
60°	504.0	489.6	455.1	420.5	409.0	394.5	383.0	371.6	374.5
62.5°	440.7	426.3	394.5	360.0	348.5	328.3	313.9	299.5	305.3
65°	380.1	365.8	337.0	308.1	290.8	267.9	244.8	236.1	241.9
67.5°	325.4	313.9	285.2	256.3	241.9	216.1	193.0	193.0	195.9
70°	270.8	259.2	236.1	210.2	193.0	169.9	161.3	164.2	164.2
72.5°	221.7	213.2	190.1	167.0	149.7	135.3	135.3	138.2	141.1
75°	175.7	169.9	146.9	126.8	115.1	106.6	112.4	115.1	118.1
77.5°	135.3	126.8	109.5	95.1	86.4	89.3	95.1	97.9	100.8
80°	95.1	92.2	77.8	69.1	66.2	69.1	74.9	77.8	77.8
82.5°	60.5	57.6	48.9	46.0	46.0	48.9	54.7	54.7	54.7
85°	31.7	28.8	26.0	26.0	28.8	31.7	34.6	34.6	34.6
87.5°	11.5	8.7	11.5	11.5	14.4	14.4	14.4	14.4	14.4
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)