

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: P582556

Luminaire Tested: **HC640D010-HM63040940-61WWW**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582556
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-HM63040940-61WWW
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3987.4 lumens
Efficiency: N/A
Efficacy: 97.3 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

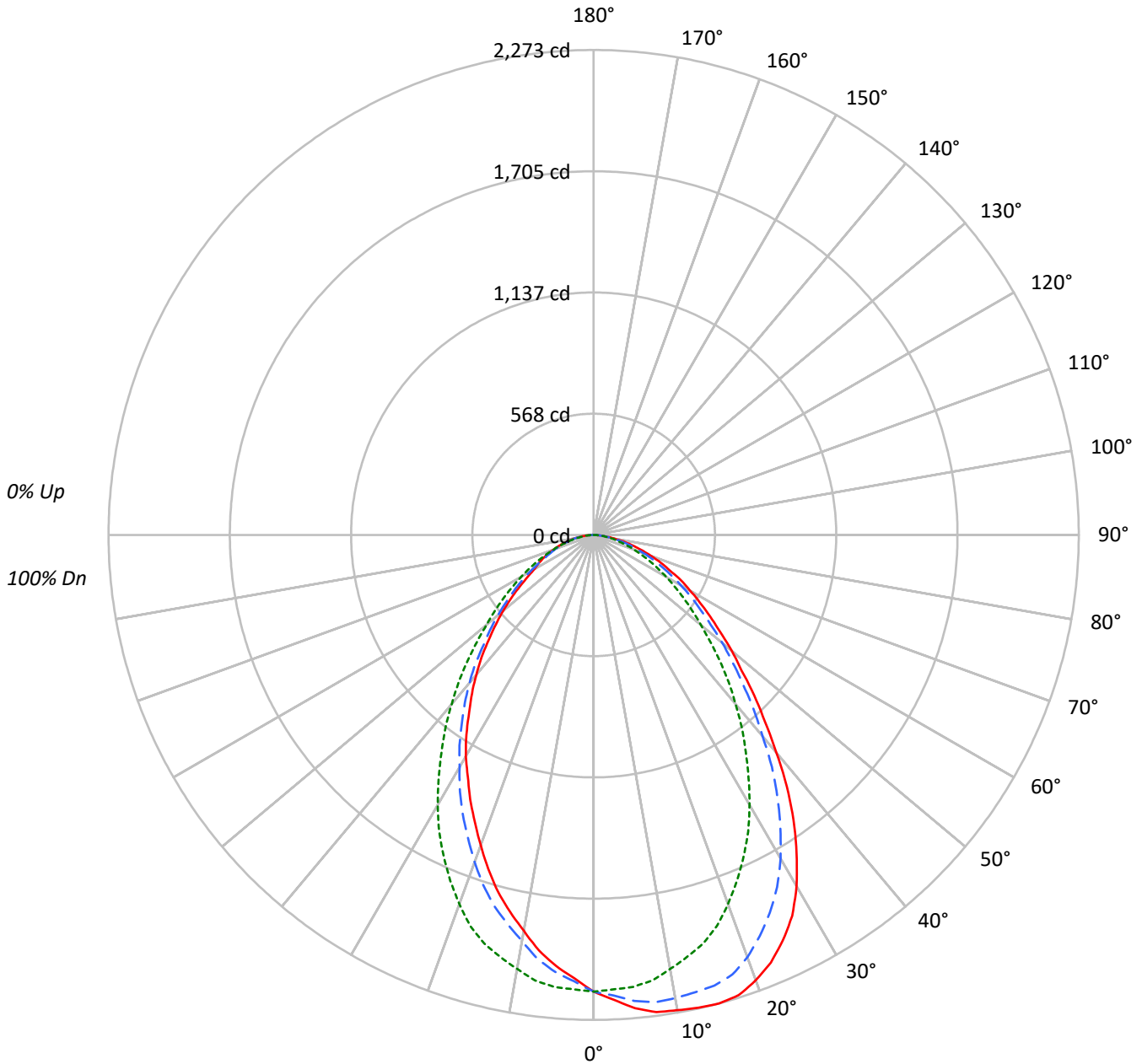
Input Watts (W): 41
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	117348	117348	117348
5°	122551	117004	111611
10°	125894	114989	104886
15°	129013	112498	98270
20°	129587	107395	90255
25°	126860	100548	82777
30°	120367	92464	75860
35°	109326	83098	68054
40°	95250	74010	61229
45°	82419	64774	53827
50°	71998	55776	47180
55°	63615	49011	40476
60°	57166	42968	35074
65°	51186	37371	34011
70°	45713	31864	31864
75°	39672	26857	29886
80°	31822	22730	27276
85°	21763	19939	23587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.2	5.0
10°-20°	559.2	14.0
20°-30°	779.4	19.5
30°-40°	803.0	20.1
40°-50°	665.5	16.7
50°-60°	478.3	12.0
60°-70°	304.6	7.6
70°-80°	156.4	3.9
80°-90°	39.8	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°	1539.8	38.6
0°-40°	2342.8	58.8
0°-60°	3486.6	87.4
0°-90°	3987.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3987.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2141	2141	2141	2141	2141	
5°	2227	2192	2126	2057	2028	214
15°	2273	2187	1982	1801	1732	641
25°	2097	1953	1662	1449	1368	961
35°	1634	1501	1242	1078	1017	1015
45°	1063	988	836	729	694	823
55°	666	611	513	455	424	600
65°	395	352	288	251	262	395
75°	187	161	127	133	141	200
85°	35	32	32	35	38	44
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°	2140.6	2140.6	2140.6	2140.6	2140.6	2140.6	2140.6	2140.6	2140.6
2.5°	2181.0	2172.3	2160.8	2149.3	2131.9	2111.9	2094.6	2088.8	2080.1
5°	2227.0	2215.5	2192.4	2163.7	2126.2	2088.8	2057.1	2036.9	2028.2
7.5°	2255.9	2241.4	2209.7	2160.8	2106.0	2051.3	2005.1	1976.4	1964.9
10°	2261.6	2247.2	2204.0	2137.7	2065.7	1990.8	1933.1	1898.6	1884.2
12.5°	2270.3	2250.1	2195.3	2117.5	2025.3	1938.9	1866.9	1823.6	1809.3
15°	2273.2	2250.1	2186.6	2091.7	1982.2	1878.4	1800.7	1748.7	1731.5
17.5°	2261.6	2235.7	2160.8	2045.5	1921.7	1812.2	1720.0	1665.2	1642.2
20°	2221.3	2192.4	2106.0	1976.4	1840.9	1725.8	1630.7	1573.0	1547.1
22.5°	2169.4	2131.9	2034.0	1895.7	1754.5	1633.6	1538.5	1480.8	1454.9
25°	2097.3	2062.8	1953.3	1806.4	1662.3	1535.6	1449.2	1388.6	1368.5
27.5°	2013.8	1973.5	1861.1	1714.2	1567.2	1440.5	1357.0	1302.2	1276.3
30°	1901.5	1864.0	1751.6	1604.7	1460.7	1342.6	1256.1	1210.1	1198.4
32.5°	1768.9	1737.3	1627.8	1489.5	1351.2	1241.7	1169.7	1120.8	1109.1
35°	1633.6	1596.1	1501.0	1371.4	1241.7	1143.7	1077.5	1034.2	1016.9
37.5°	1486.6	1452.1	1371.4	1256.1	1140.9	1048.7	991.1	953.6	936.4
40°	1331.0	1305.2	1230.2	1138.0	1034.2	953.6	904.7	872.9	855.6
42.5°	1187.0	1161.1	1109.1	1022.8	936.4	864.3	821.1	792.3	777.8
45°	1063.1	1040.0	988.2	913.3	835.5	775.0	728.9	708.7	694.3
47.5°	939.3	927.7	881.6	812.5	740.5	688.5	656.9	633.8	622.3
50°	844.2	829.8	786.5	714.5	654.0	613.6	584.8	564.7	553.2
52.5°	746.2	731.8	691.4	631.0	581.9	544.5	515.7	498.5	486.8
55°	665.6	654.0	610.8	556.1	512.8	481.2	455.2	435.0	423.5
57.5°	590.6	579.0	538.8	486.8	449.4	420.6	397.5	380.3	365.9
60°	521.4	512.8	472.5	423.5	391.9	363.0	342.8	328.4	319.9
62.5°	461.0	443.7	409.2	365.9	337.1	314.1	293.9	285.2	291.0
65°	394.6	386.1	351.5	314.1	288.1	265.1	250.6	256.4	262.2
67.5°	339.9	328.4	299.7	265.1	242.0	224.8	216.1	227.7	230.4
70°	285.2	273.7	247.7	219.0	198.8	187.3	187.3	195.9	198.8
72.5°	233.3	224.8	201.7	178.6	164.2	155.5	161.3	167.1	170.0
75°	187.3	178.6	161.3	141.1	126.8	126.8	132.6	138.2	141.1
77.5°	144.0	138.2	121.0	106.6	100.8	100.8	106.6	109.5	112.4
80°	100.8	95.1	86.4	77.8	72.0	77.8	83.5	83.5	86.4
82.5°	66.2	63.4	57.6	51.8	51.8	54.7	57.6	60.5	60.5
85°	34.6	34.6	31.7	28.8	31.7	34.6	34.6	37.5	37.5
87.5°	11.5	11.5	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)