

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: P582548

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

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582548  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-14)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC640D010-HM63040940-61RWWC  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4292.9 lumens  
Efficiency: N/A  
Efficacy: 104.7 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.15 / 1.2  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

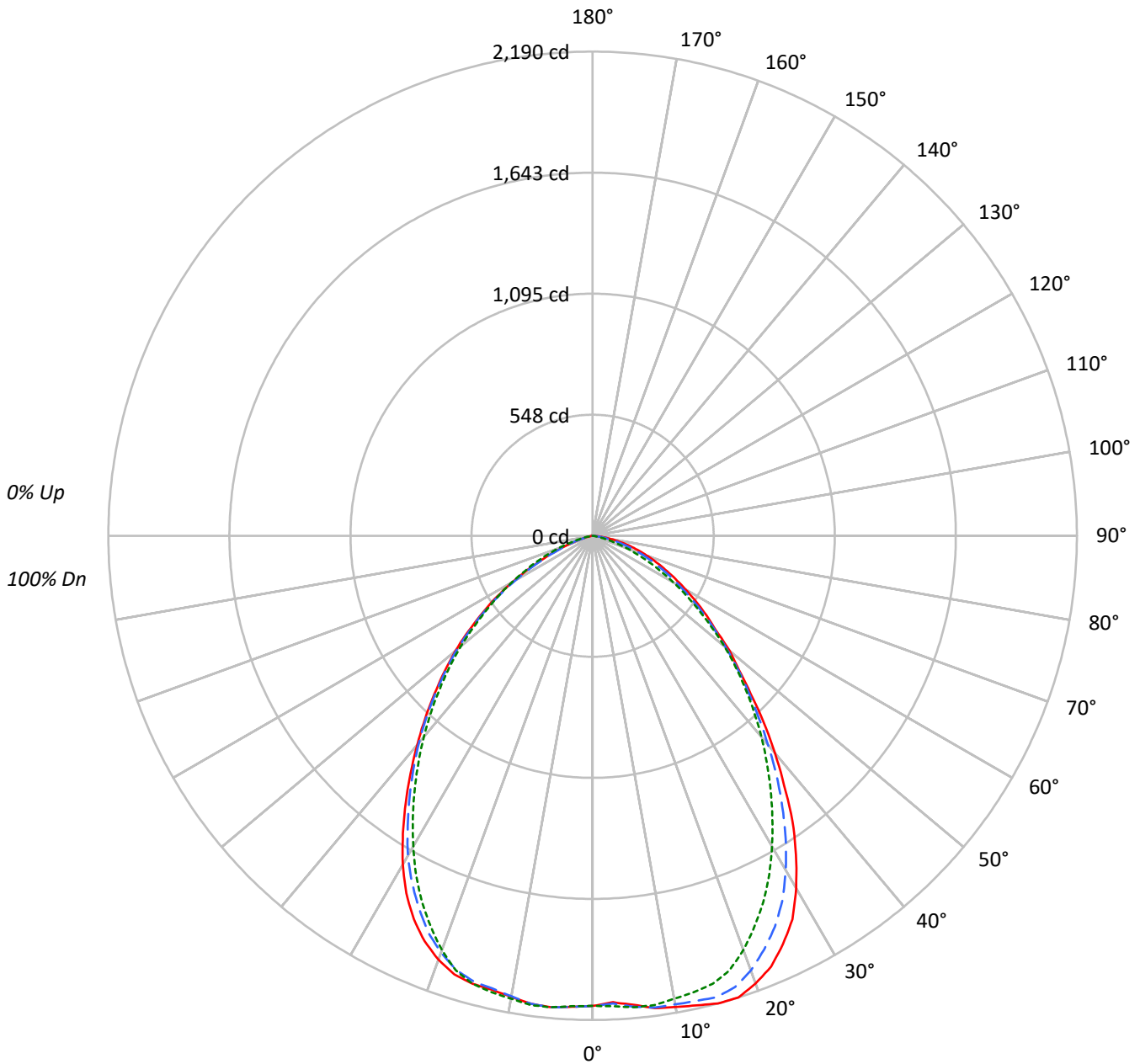
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
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	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88																			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77																			
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	69	68																			
4	88	78	70	64	86	76	69	64	74	68	63	72	67	62	70	65	61	60																			
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	62	55	50	60	54	49	58	53	49	47																			
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	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°	116570	116570	116570
5°	117174	117802	117802
10°	120450	118368	117889
15°	124280	119047	119047
20°	125725	116315	119010
25°	123219	110492	115724
30°	116543	102680	108700
35°	105477	93906	98531
40°	91758	84952	88244
45°	78403	75721	78403
50°	68799	66343	69047
55°	60031	55893	58101
60°	53077	46433	45797
65°	47087	36632	31391
70°	41561	25854	18946
75°	35393	14636	9171
80°	26361	4546	2747
85°	14530	1824	1824



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	204.0	4.8
10°-20°	596.7	13.9
20°-30°	871.6	20.3
30°-40°	914.1	21.3
40°-50°	770.1	17.9
50°-60°	539.5	12.6
60°-70°	289.3	6.7
70°-80°	97.0	2.3
80°-90°	10.6	0.2
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°	1672.3	39.0
0°-40°	2586.4	60.2
0°-60°	3896.0	90.8
0°-90°	4292.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4292.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2126	2126	2126	2126	2126	
5°	2129	2138	2141	2141	2141	205
15°	2190	2161	2098	2086	2098	618
25°	2037	1951	1827	1858	1913	933
35°	1576	1495	1403	1444	1472	978
45°	1011	994	977	1003	1011	788
55°	628	608	585	596	608	565
65°	363	331	282	233	242	363
75°	167	130	69	43	43	177
85°	23	12	3	3	3	32
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°	2126.4	2126.4	2126.4	2126.4	2126.4	2126.4	2126.4	2126.4	2126.4
2.5°	2112.0	2112.0	2117.8	2123.5	2129.3	2129.3	2132.2	2135.1	2132.2
5°	2129.3	2129.3	2137.8	2140.7	2140.7	2137.8	2140.7	2140.7	2140.7
7.5°	2155.1	2149.4	2152.3	2146.5	2140.7	2137.8	2135.1	2135.1	2135.1
10°	2163.8	2158.0	2152.3	2140.7	2126.4	2117.8	2114.9	2117.8	2117.8
12.5°	2175.3	2169.6	2155.1	2132.2	2114.9	2100.4	2097.6	2103.3	2103.3
15°	2189.8	2184.0	2160.9	2123.5	2097.6	2083.1	2086.0	2091.8	2097.6
17.5°	2189.8	2178.2	2140.7	2091.8	2060.1	2045.6	2057.2	2071.6	2080.3
20°	2155.1	2143.6	2091.8	2031.3	1993.8	1985.2	2005.4	2031.3	2040.0
22.5°	2109.1	2086.0	2025.6	1953.4	1913.2	1913.2	1942.0	1973.6	1985.2
25°	2037.1	2019.8	1950.7	1867.0	1826.7	1823.8	1858.5	1901.6	1913.2
27.5°	1956.3	1933.3	1858.5	1771.9	1728.8	1731.6	1769.0	1812.3	1823.8
30°	1841.1	1812.3	1746.1	1662.5	1622.1	1633.7	1671.2	1702.8	1717.2
32.5°	1711.4	1685.6	1625.0	1547.2	1512.6	1524.2	1555.9	1584.6	1596.3
35°	1576.1	1547.2	1495.4	1426.2	1403.2	1414.8	1443.5	1466.6	1472.3
37.5°	1423.3	1403.2	1365.7	1311.0	1293.7	1308.1	1331.1	1345.5	1351.3
40°	1282.2	1264.9	1233.1	1192.9	1187.1	1198.6	1221.7	1230.2	1233.1
42.5°	1143.8	1129.5	1109.3	1080.5	1080.5	1092.0	1112.2	1118.0	1120.8
45°	1011.3	1002.7	994.0	971.0	976.7	991.1	1002.7	1011.3	1011.3
47.5°	896.1	898.9	887.4	870.1	875.9	890.3	898.9	907.6	907.6
50°	806.7	798.1	786.5	769.2	777.9	789.4	801.0	806.7	809.6
52.5°	703.0	700.1	691.6	671.4	677.0	682.8	694.3	703.0	705.9
55°	628.1	619.5	607.9	584.8	584.8	590.6	596.5	602.1	607.9
57.5°	556.1	547.4	530.1	504.3	501.4	501.4	498.5	504.3	512.8
60°	484.1	481.2	455.2	432.2	423.5	415.0	403.4	406.3	417.7
62.5°	420.6	415.0	391.9	363.0	345.7	331.3	317.0	314.1	325.5
65°	363.0	357.3	331.3	302.6	282.4	256.4	233.3	233.3	242.0
67.5°	311.2	299.7	276.6	244.9	219.0	187.3	164.2	170.0	172.9
70°	259.3	250.6	224.8	193.1	161.3	129.7	115.3	118.2	118.2
72.5°	213.2	201.7	175.7	144.0	112.4	83.5	77.8	74.9	74.9
75°	167.1	155.6	129.7	98.0	69.1	48.9	43.3	43.3	43.3
77.5°	121.0	112.4	89.3	60.5	37.5	23.1	20.2	17.3	17.3
80°	83.5	74.9	54.7	31.7	14.4	8.7	8.7	8.7	8.7
82.5°	48.9	40.4	26.0	14.4	5.8	2.9	2.9	2.9	2.9
85°	23.1	17.3	11.5	5.8	2.9	2.9	2.9	2.9	2.9
87.5°	2.9	2.9	2.9	0.0	0.0	0.0	0.0	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)