

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: P593300

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

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593300  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-15)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC640D010-HM63040950-61RWWH  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4307.3 lumens  
Efficiency: N/A  
Efficacy: 105.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.19  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

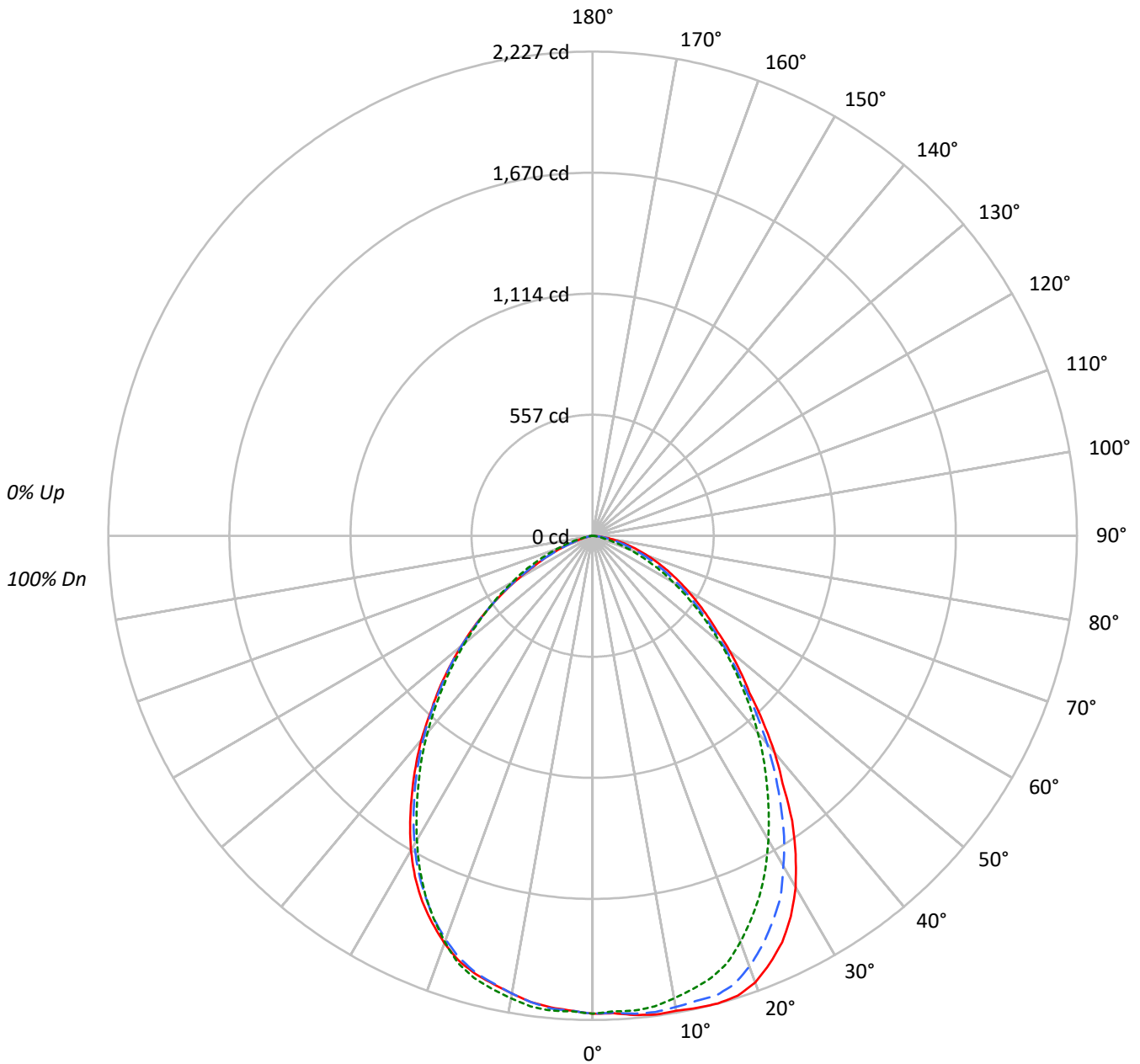
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77			77
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67			67
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59			59
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53			53
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47			47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42			42
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38			38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35			35
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32			32

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	120500	120500	120500
5°	121758	120647	119860
10°	123484	120277	118997
15°	126391	119518	118383
20°	127563	115971	116309
25°	124773	110129	112222
30°	118176	102307	105769
35°	107003	93505	96985
40°	93189	84530	87621
45°	79070	74822	77504
50°	70028	65354	67077
55°	61685	55893	55616
60°	55270	47058	43264
65°	49331	37747	31015
70°	43405	27248	19394
75°	36622	16479	10972
80°	28192	7293	4546
85°	16354	1824	1824



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	208.7	4.8
10°-20°	599.7	13.9
20°-30°	866.9	20.1
30°-40°	912.1	21.2
40°-50°	766.8	17.8
50°-60°	538.2	12.5
60°-70°	296.0	6.9
70°-80°	105.1	2.4
80°-90°	13.8	0.3
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°	1675.2	38.9
0°-40°	2587.4	60.1
0°-60°	3892.3	90.4
0°-90°	4307.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4307.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2198	2198	2198	2198	2198	
5°	2213	2207	2192	2184	2178	211
15°	2227	2190	2106	2080	2086	628
25°	2063	1959	1821	1824	1855	944
35°	1599	1507	1397	1426	1449	991
45°	1020	991	965	988	1000	800
55°	645	611	585	585	582	581
65°	380	340	291	239	239	378
75°	173	138	78	52	52	186
85°	26	14	3	3	3	36
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°	2198.1	2198.1	2198.1	2198.1	2198.1	2198.1	2198.1	2198.1	2198.1
2.5°	2198.1	2198.1	2195.3	2195.3	2189.5	2189.5	2186.6	2186.6	2186.6
5°	2212.6	2212.6	2206.8	2198.1	2192.4	2183.7	2183.7	2180.8	2178.1
7.5°	2221.2	2218.3	2209.7	2198.1	2183.7	2169.4	2163.6	2166.5	2163.6
10°	2218.3	2212.6	2201.0	2178.1	2160.7	2140.6	2137.7	2134.8	2137.7
12.5°	2224.1	2215.4	2192.4	2163.6	2134.8	2111.7	2108.8	2108.8	2111.7
15°	2227.0	2218.3	2189.5	2146.3	2105.9	2083.0	2080.1	2083.0	2085.9
17.5°	2218.3	2206.8	2163.6	2105.9	2059.9	2036.8	2036.8	2042.6	2048.4
20°	2186.6	2169.4	2108.8	2039.7	1987.9	1970.6	1976.4	1987.9	1993.7
22.5°	2129.0	2108.8	2039.7	1961.9	1907.1	1892.8	1907.1	1921.7	1927.3
25°	2062.8	2039.7	1959.1	1878.4	1820.7	1803.5	1823.6	1846.7	1855.3
27.5°	1973.5	1947.5	1872.6	1780.4	1722.9	1714.2	1737.3	1763.1	1768.9
30°	1866.9	1838.0	1754.5	1668.1	1616.2	1613.4	1639.3	1662.3	1670.9
32.5°	1737.3	1711.3	1639.3	1552.9	1506.7	1506.7	1532.7	1552.9	1561.4
35°	1598.9	1570.1	1506.7	1434.7	1397.2	1400.1	1426.1	1440.5	1449.2
37.5°	1434.7	1426.1	1377.0	1316.6	1290.6	1296.4	1316.6	1328.1	1336.8
40°	1302.2	1279.2	1247.5	1198.4	1181.2	1187.0	1207.1	1218.6	1224.4
42.5°	1158.1	1143.7	1117.9	1083.3	1071.7	1080.4	1097.7	1106.2	1103.3
45°	1019.9	1016.9	991.1	970.9	965.1	976.6	988.2	996.8	999.7
47.5°	919.1	907.5	884.4	870.0	864.3	875.8	887.3	893.1	893.1
50°	821.1	809.6	786.5	772.1	766.3	777.8	786.5	792.3	786.5
52.5°	723.1	711.6	691.4	674.1	671.2	677.0	679.9	682.8	688.5
55°	645.4	633.8	610.8	590.6	584.8	587.7	584.8	584.8	581.9
57.5°	570.5	558.9	535.9	512.8	504.1	501.4	492.6	489.7	486.8
60°	504.1	489.7	466.7	440.8	429.2	417.7	403.4	394.6	394.6
62.5°	440.8	426.4	400.4	377.4	360.1	339.9	317.0	305.3	305.3
65°	380.3	368.8	339.9	314.1	291.0	265.0	239.1	233.3	239.1
67.5°	322.6	311.2	282.4	256.4	227.7	195.9	172.9	172.9	178.6
70°	270.8	259.3	233.3	201.7	170.0	138.2	121.0	121.0	121.0
72.5°	221.9	210.2	181.5	152.7	121.0	89.3	80.7	83.5	80.7
75°	172.9	164.2	138.2	106.6	77.8	54.7	51.8	48.9	51.8
77.5°	129.7	121.0	98.0	69.1	43.3	31.7	28.8	28.8	28.8
80°	89.3	80.7	63.4	40.4	23.1	14.4	14.4	14.4	14.4
82.5°	54.7	46.0	34.6	20.2	8.7	8.7	8.7	8.7	8.7
85°	26.0	20.2	14.4	5.8	2.9	2.9	2.9	2.9	2.9
87.5°	5.8	5.8	2.9	2.9	0.0	2.9	2.9	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)