

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: P582513

Luminaire Tested: **HC640D010-HM63040930-61RWWH**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582513  
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-HM63040930-61RWWH  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4258.7 lumens  
Efficiency: N/A  
Efficacy: 103.9 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

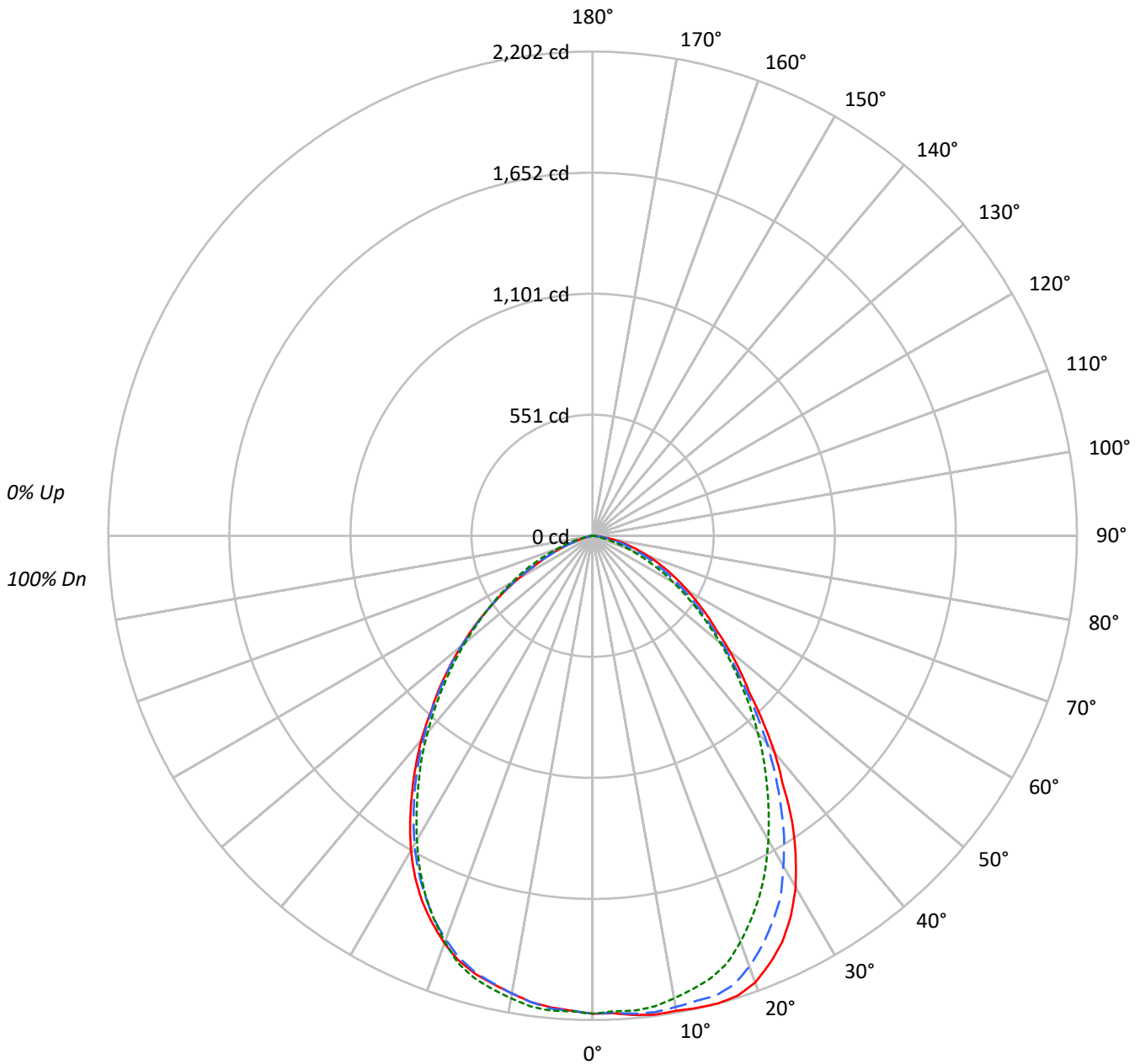
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
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	93	92	90	88																			
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77																			
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67																			
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59																			
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	61	55	50	60	54	49	58	53	49	47																			
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	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°	119141	119141	119141
5°	120383	119282	118501
10°	122086	118925	117655
15°	124961	118173	117044
20°	126128	114658	114991
25°	123358	108889	110952
30°	116841	101155	104573
35°	105792	92454	95881
40°	92137	83571	86634
45°	78179	73977	76636
50°	69234	64612	66326
55°	60978	55262	54985
60°	54656	46542	42793
65°	48773	37319	30665
70°	42924	26928	19170
75°	36198	16288	10866
80°	27844	7198	4483
85°	16102	1824	1824



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	206.3	4.8
10°-20°	592.9	13.9
20°-30°	857.1	20.1
30°-40°	901.8	21.2
40°-50°	758.1	17.8
50°-60°	532.1	12.5
60°-70°	292.7	6.9
70°-80°	103.9	2.4
80°-90°	13.6	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°	1656.3	38.9
0°-40°	2558.2	60.1
0°-60°	3848.4	90.4
0°-90°	4258.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4258.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2173	2173	2173	2173	2173	
5°	2188	2182	2168	2159	2153	209
15°	2202	2165	2082	2057	2062	621
25°	2039	1937	1800	1803	1834	933
35°	1581	1490	1382	1410	1433	980
45°	1008	980	954	977	988	791
55°	638	604	578	578	575	574
65°	376	336	288	236	236	374
75°	171	137	77	51	51	183
85°	26	14	3	3	3	35
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°	2173.3	2173.3	2173.3	2173.3	2173.3	2173.3	2173.3	2173.3	2173.3
2.5°	2173.3	2173.3	2170.5	2170.5	2164.9	2164.9	2162.0	2162.0	2162.0
5°	2187.6	2187.6	2181.9	2173.3	2167.6	2159.1	2159.1	2156.3	2153.4
7.5°	2196.1	2193.2	2184.8	2173.3	2159.1	2144.8	2139.2	2142.1	2139.2
10°	2193.2	2187.6	2176.2	2153.4	2136.4	2116.3	2113.6	2110.7	2113.6
12.5°	2199.0	2190.5	2167.6	2139.2	2110.7	2087.8	2085.1	2085.1	2087.8
15°	2201.8	2193.2	2164.9	2122.1	2082.2	2059.4	2056.6	2059.4	2062.3
17.5°	2193.2	2181.9	2139.2	2082.2	2036.7	2013.8	2013.8	2019.5	2025.2
20°	2162.0	2144.8	2085.1	2016.8	1965.4	1948.3	1954.0	1965.4	1971.1
22.5°	2105.0	2085.1	2016.8	1939.7	1885.6	1871.4	1885.6	1899.9	1905.6
25°	2039.4	2016.8	1937.0	1857.2	1800.2	1783.2	1803.1	1825.9	1834.3
27.5°	1951.2	1925.5	1851.5	1760.3	1703.4	1694.8	1717.6	1743.2	1749.0
30°	1845.8	1817.3	1734.7	1649.3	1598.0	1595.1	1620.8	1643.6	1652.0
32.5°	1717.6	1692.0	1620.8	1535.3	1489.7	1489.7	1515.4	1535.3	1543.9
35°	1580.8	1552.3	1489.7	1418.6	1381.5	1384.3	1410.0	1424.3	1432.7
37.5°	1418.6	1410.0	1361.6	1301.7	1276.1	1281.8	1301.7	1313.1	1321.6
40°	1287.5	1264.7	1233.4	1185.0	1167.8	1173.5	1193.4	1204.9	1210.6
42.5°	1145.0	1130.8	1105.2	1071.0	1059.6	1068.1	1085.3	1093.8	1090.9
45°	1008.4	1005.5	979.9	960.0	954.2	965.6	977.0	985.6	988.5
47.5°	908.7	897.3	874.5	860.3	854.6	865.9	877.3	883.1	883.1
50°	811.8	800.4	777.7	763.4	757.6	769.1	777.7	783.4	777.7
52.5°	714.9	703.6	683.6	666.5	663.7	669.4	672.3	675.1	680.7
55°	638.0	626.7	603.8	583.9	578.2	581.0	578.2	578.2	575.3
57.5°	564.0	552.7	529.8	507.0	498.5	495.7	487.1	484.2	481.4
60°	498.5	484.2	461.4	435.8	424.5	413.0	398.7	390.3	390.3
62.5°	435.8	421.6	396.0	373.1	356.0	336.1	313.3	301.9	301.9
65°	376.0	364.6	336.1	310.5	287.7	262.1	236.4	230.7	236.4
67.5°	319.1	307.6	279.1	253.5	225.0	193.6	170.9	170.9	176.6
70°	267.8	256.4	230.7	199.4	168.0	136.8	119.6	119.6	119.6
72.5°	219.3	207.9	179.5	151.0	119.6	88.2	79.8	82.6	79.8
75°	170.9	162.4	136.8	105.4	76.9	54.1	51.3	48.4	51.3
77.5°	128.2	119.6	96.8	68.3	42.7	31.4	28.5	28.5	28.5
80°	88.2	79.8	62.7	39.8	22.8	14.2	14.2	14.2	14.2
82.5°	54.1	45.6	34.2	19.9	8.6	8.6	8.6	8.6	8.6
85°	25.6	19.9	14.2	5.7	2.9	2.9	2.9	2.9	2.9
87.5°	5.7	5.7	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)