

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: P582502

Luminaire Tested: **HC640D010-HM63040927-61WWW**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582502  
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-HM63040927-61WWW  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3300.6 lumens  
Efficiency: N/A  
Efficacy: 80.5 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

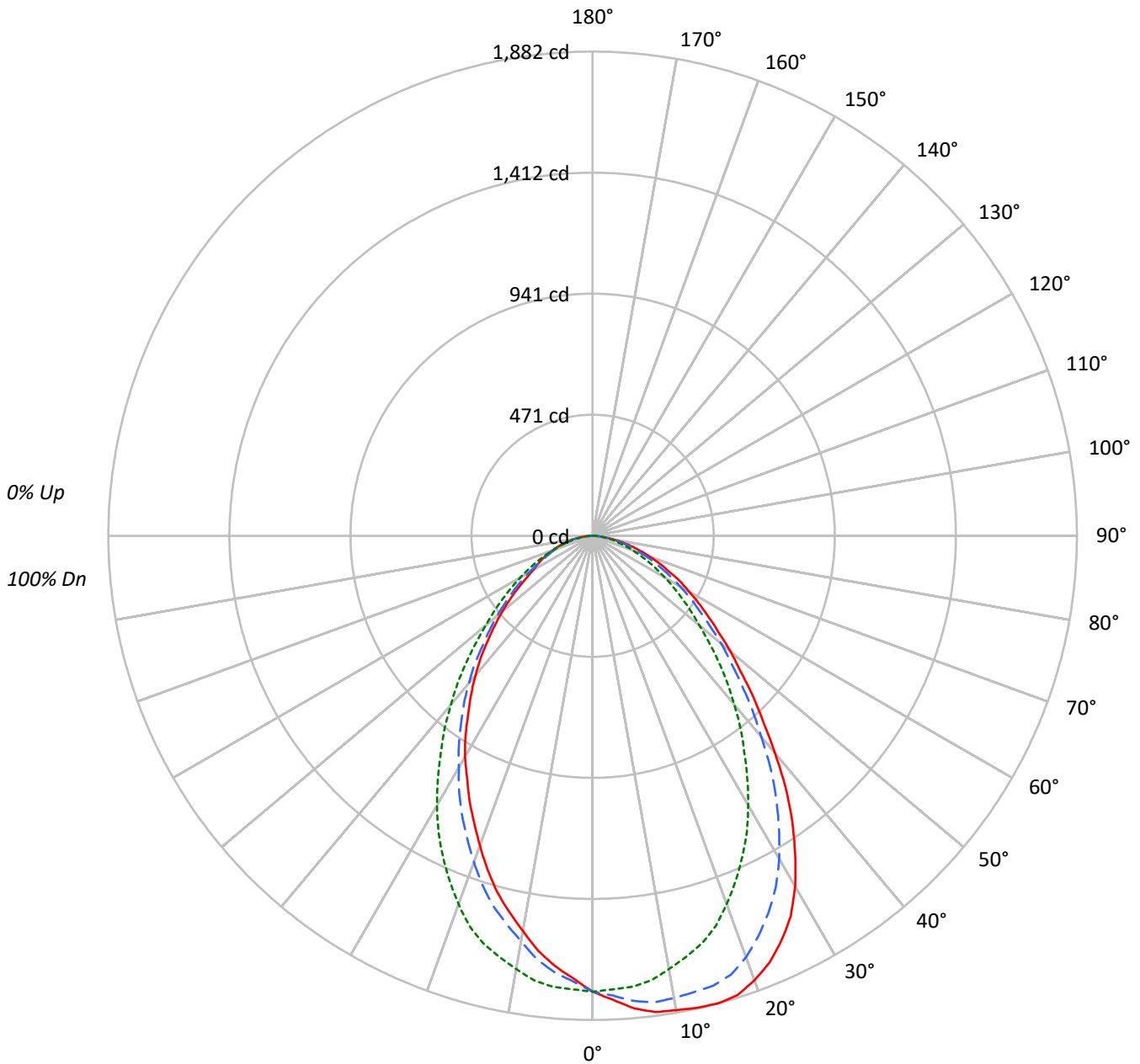
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20					20					20					20					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								
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°	97136	97136	97136
5°	101442	96847	92384
10°	104212	95177	86816
15°	106788	93116	81340
20°	107267	88896	74708
25°	105012	83231	68520
30°	99636	76537	62794
35°	90487	68790	56336
40°	78848	61272	50688
45°	68224	53618	44555
50°	59589	46165	39043
55°	52653	40572	33509
60°	47332	35556	29022
65°	42378	30937	28148
70°	37843	26383	26383
75°	32830	22240	24760
80°	26361	18816	22572
85°	17989	16480	19499



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.5	5.0
10°-20°	462.9	14.0
20°-30°	645.1	19.5
30°-40°	664.7	20.1
40°-50°	550.9	16.7
50°-60°	395.9	12.0
60°-70°	252.1	7.6
70°-80°	129.5	3.9
80°-90°	32.9	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°	1274.6	38.6
0°-40°	1939.3	58.8
0°-60°	2886.1	87.4
0°-90°	3300.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3300.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1772	1772	1772	1772	1772	
5°	1843	1815	1760	1703	1679	177
15°	1882	1810	1641	1490	1433	530
25°	1736	1617	1376	1200	1133	795
35°	1352	1242	1028	892	842	840
45°	880	818	692	603	575	681
55°	551	506	424	377	351	496
65°	327	291	238	208	217	327
75°	155	134	105	110	117	165
85°	29	26	26	29	31	37
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°	1771.9	1771.9	1771.9	1771.9	1771.9	1771.9	1771.9	1771.9	1771.9
2.5°	1805.3	1798.1	1788.6	1779.1	1764.7	1748.1	1733.7	1728.9	1721.8
5°	1843.4	1833.9	1814.8	1790.9	1759.9	1728.9	1702.7	1686.1	1678.8
7.5°	1867.3	1855.3	1829.1	1788.6	1743.3	1697.9	1659.8	1636.0	1626.5
10°	1872.1	1860.2	1824.3	1769.4	1709.8	1647.8	1600.2	1571.6	1559.6
12.5°	1879.2	1862.6	1817.2	1752.8	1676.4	1605.0	1545.3	1509.6	1497.6
15°	1881.6	1862.6	1810.1	1731.3	1640.7	1554.8	1490.5	1447.6	1433.2
17.5°	1872.1	1850.6	1788.6	1693.2	1590.6	1500.0	1423.7	1378.4	1359.4
20°	1838.7	1814.8	1743.3	1636.0	1523.8	1428.5	1349.7	1302.1	1280.6
22.5°	1795.7	1764.7	1683.7	1569.2	1452.4	1352.1	1273.5	1225.7	1204.2
25°	1736.1	1707.4	1616.8	1495.2	1376.0	1271.1	1199.5	1149.5	1132.8
27.5°	1667.0	1633.6	1540.6	1419.0	1297.4	1192.4	1123.3	1077.9	1056.5
30°	1574.0	1543.0	1450.0	1328.4	1209.1	1111.3	1039.8	1001.6	992.0
32.5°	1464.2	1438.0	1347.4	1232.9	1118.5	1027.9	968.3	927.7	918.2
35°	1352.1	1321.1	1242.5	1135.1	1027.9	946.8	891.9	856.2	841.8
37.5°	1230.5	1201.9	1135.1	1039.8	944.4	868.0	820.4	789.4	775.0
40°	1101.8	1080.3	1018.3	942.0	856.2	789.4	748.8	722.5	708.3
42.5°	982.5	961.0	918.2	846.5	775.0	715.4	679.7	655.8	643.9
45°	880.0	860.9	817.9	755.9	691.6	641.6	603.3	586.7	574.7
47.5°	777.4	767.9	729.8	672.6	612.9	569.9	543.7	524.7	515.1
50°	698.7	686.8	651.1	591.4	541.3	507.9	484.1	467.5	457.8
52.5°	617.7	605.7	572.3	522.3	481.7	450.7	426.8	412.6	403.1
55°	550.9	541.3	505.6	460.2	424.5	398.2	376.8	360.1	350.6
57.5°	488.8	479.3	446.0	403.1	372.1	348.2	329.1	314.8	302.8
60°	431.7	424.5	391.1	350.6	324.3	300.5	283.8	271.8	264.7
62.5°	381.6	367.2	338.6	302.8	279.0	260.0	243.2	236.1	240.8
65°	326.7	319.6	291.0	260.0	238.5	219.3	207.5	212.2	217.0
67.5°	281.3	271.8	248.0	219.3	200.4	186.0	178.9	188.4	190.7
70°	236.1	226.6	205.1	181.2	164.6	155.0	155.0	162.1	164.6
72.5°	193.1	186.0	167.0	147.9	136.0	128.7	133.5	138.4	140.7
75°	155.0	147.9	133.5	116.9	105.0	105.0	109.7	114.5	116.9
77.5°	119.2	114.5	100.1	88.2	83.5	83.5	88.2	90.6	93.0
80°	83.5	78.7	71.5	64.4	59.6	64.4	69.1	69.1	71.5
82.5°	54.9	52.5	47.7	42.9	42.9	45.4	47.7	50.1	50.1
85°	28.6	28.6	26.2	23.9	26.2	28.6	28.6	31.0	31.0
87.5°	9.5	9.5	9.5	9.5	11.9	11.9	11.9	11.9	11.9
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)