

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: P593301

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

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P593301
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC640D010-HM63040950-61WWBB
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3650.4 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.06 / 1.14
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

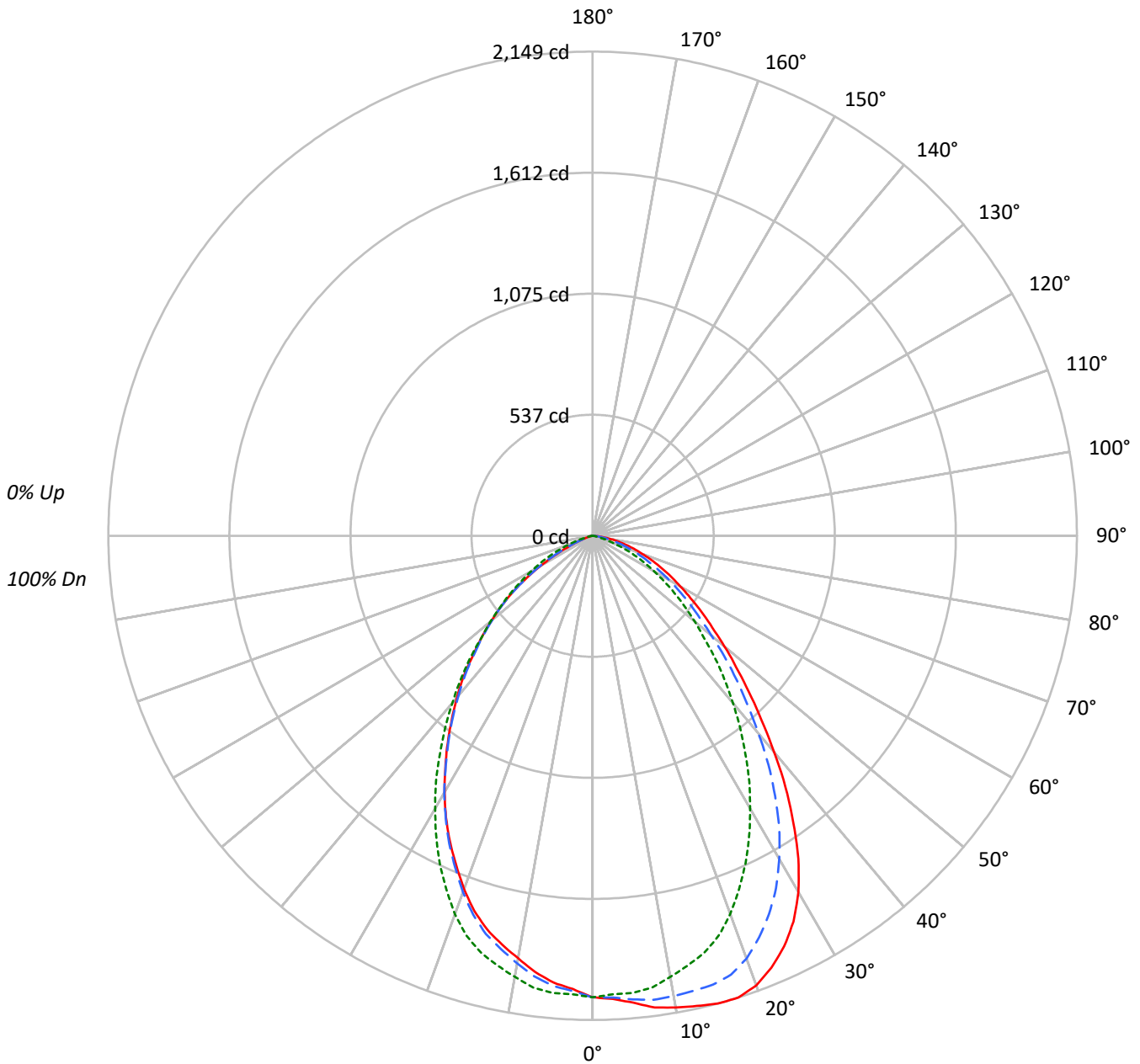
Input Watts (W): 41
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89			89
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78			78
3	96	87	80	75	93	86	79	74	83	77	73	80	76	72	78	74	71	69			69
4	89	79	71	66	87	78	71	65	75	69	64	73	68	64	71	66	63	61			61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54			54
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	49			49
7	72	60	52	47	70	59	52	47	58	51	46	56	51	46	55	50	46	44			44
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40			40
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37			37
10	60	48	40	36	58	47	40	36	46	40	36	45	40	35	45	39	35	34			34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	112294	112294	112294
5°	114467	112090	109553
10°	118357	110664	106010
15°	121981	108729	102685
20°	123870	104210	97314
25°	121634	97064	90616
30°	115625	88450	83158
35°	103925	79056	75007
40°	89689	69273	67011
45°	75946	59634	58076
50°	65107	50369	49875
55°	56447	42407	40754
60°	49272	34438	29066
65°	43351	26540	16072
70°	37394	17551	7838
75°	31729	8557	3050
80°	24561	3631	1831
85°	14530	1824	1824



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.3	5.3
10°-20°	546.6	15.0
20°-30°	769.8	21.1
30°-40°	786.5	21.5
40°-50°	634.2	17.4
50°-60°	425.3	11.7
60°-70°	215.3	5.9
70°-80°	68.8	1.9
80°-90°	10.6	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°	1509.7	41.4
0°-40°	2296.3	62.9
0°-60°	3355.7	91.9
0°-90°	3650.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3650.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2048	2048	2048	2048	2048	
5°	2080	2066	2037	2005	1991	200
15°	2149	2063	1916	1830	1809	607
25°	2011	1852	1605	1507	1498	921
35°	1553	1412	1181	1115	1121	966
45°	980	902	769	743	749	762
55°	591	524	444	424	426	531
65°	334	277	205	136	124	334
75°	150	107	40	14	14	161
85°	23	12	3	3	3	31
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°	2048.4	2048.4	2048.4	2048.4	2048.4	2048.4	2048.4	2048.4	2048.4
2.5°	2057.1	2054.2	2051.3	2045.5	2036.9	2028.2	2022.6	2016.8	2013.8
5°	2080.1	2074.4	2065.7	2054.2	2036.9	2016.8	2005.3	1993.7	1990.8
7.5°	2111.9	2100.2	2077.3	2051.3	2022.6	1993.7	1973.5	1962.0	1953.3
10°	2126.2	2106.0	2074.4	2031.1	1988.0	1953.3	1927.5	1910.2	1904.4
12.5°	2137.7	2114.8	2068.6	2010.9	1953.3	1907.3	1878.4	1864.0	1858.3
15°	2149.3	2126.2	2062.8	1988.0	1915.8	1861.1	1829.5	1815.1	1809.3
17.5°	2149.3	2117.5	2042.7	1947.6	1861.1	1794.9	1763.2	1748.9	1746.0
20°	2123.3	2088.8	1996.6	1884.2	1786.3	1711.4	1682.5	1673.9	1668.1
22.5°	2074.4	2034.0	1930.4	1803.6	1696.9	1624.9	1593.2	1587.4	1581.7
25°	2010.9	1970.6	1852.5	1717.1	1604.7	1532.7	1506.8	1501.0	1498.1
27.5°	1930.4	1887.1	1763.2	1624.9	1503.9	1434.8	1411.7	1411.7	1408.8
30°	1826.6	1777.6	1656.7	1518.3	1397.3	1333.9	1316.6	1316.6	1313.7
32.5°	1699.8	1650.9	1541.4	1408.8	1293.5	1227.3	1213.0	1218.6	1215.9
35°	1552.9	1512.5	1411.7	1282.1	1181.3	1120.8	1115.0	1120.8	1120.8
37.5°	1405.9	1368.5	1282.1	1169.7	1074.6	1019.9	1019.9	1028.6	1025.7
40°	1253.3	1224.4	1143.8	1045.8	968.0	930.6	924.9	933.5	936.4
42.5°	1109.1	1086.2	1017.1	936.4	867.2	829.8	838.4	844.2	847.1
45°	979.6	956.5	901.8	818.2	769.2	743.3	743.3	752.0	749.1
47.5°	864.3	847.1	792.3	711.6	668.5	656.9	662.7	668.5	668.5
50°	763.4	737.6	685.7	622.3	590.6	576.3	581.9	584.8	584.8
52.5°	668.5	651.1	599.2	541.6	512.8	504.1	504.1	507.0	507.0
55°	590.6	570.5	524.3	466.8	443.7	432.1	423.5	420.6	426.4
57.5°	515.7	498.5	455.2	400.4	374.6	363.0	345.7	339.9	345.7
60°	449.4	435.0	391.9	339.9	314.1	291.0	270.8	259.3	265.1
62.5°	391.9	374.6	331.3	288.1	259.3	233.3	201.7	184.4	193.0
65°	334.2	319.9	276.6	233.3	204.6	172.9	135.5	123.9	123.9
67.5°	282.4	267.9	227.7	190.2	155.6	118.2	83.5	80.7	83.5
70°	233.3	219.0	184.4	146.9	109.5	72.0	48.9	48.9	48.9
72.5°	193.0	175.7	144.0	106.6	69.1	37.5	26.0	28.8	28.8
75°	149.8	135.5	106.6	72.0	40.4	17.3	14.4	14.4	14.4
77.5°	112.4	100.8	74.9	46.0	20.2	5.8	5.8	5.8	5.8
80°	77.8	66.2	48.9	28.8	11.5	5.8	5.8	5.8	5.8
82.5°	46.0	40.4	28.8	14.4	5.8	2.9	2.9	2.9	2.9
85°	23.1	20.2	11.5	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)