

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: P582790

Luminaire Tested: **HC650D010-HM64560927-61WWW**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582790
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: HC650D010-HM64560927-61WWW
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: 3716.0 lumens
Efficiency: N/A
Efficacy: 77.4 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

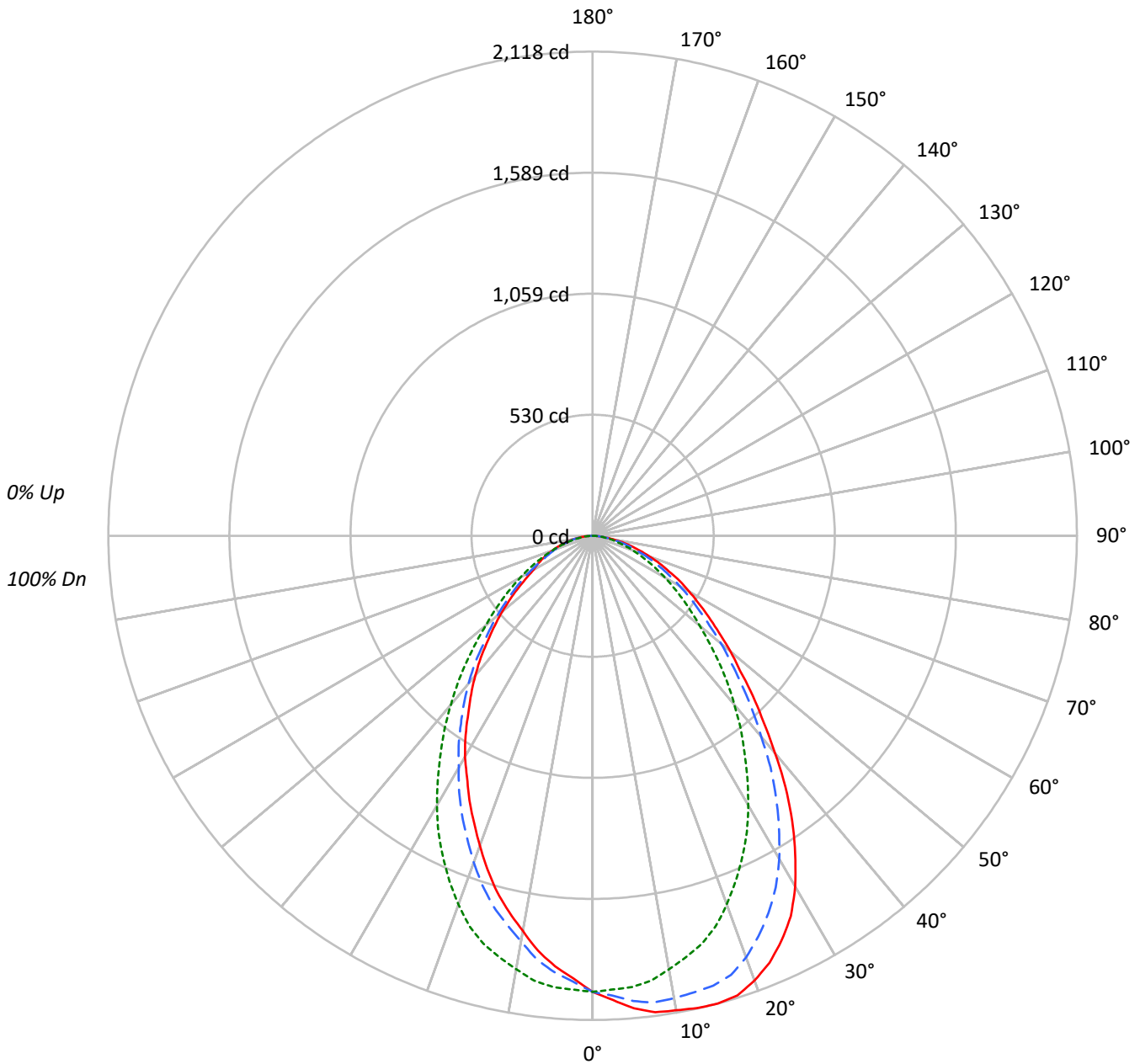
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87			87
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76			76
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66			66
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58			58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51			51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46			46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42			42
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38			38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34			34
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32			32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	109355	109355	109355
5°	114214	109041	104017
10°	117321	107157	97744
15°	120228	104836	91578
20°	120766	100085	84112
25°	118229	93707	77146
30°	112175	86165	70701
35°	101877	77437	63430
40°	88766	68979	57064
45°	76806	60363	50168
50°	67094	51981	43964
55°	59286	45685	37724
60°	53285	40041	32673
65°	47722	34816	31690
70°	42603	29701	29701
75°	36982	25015	27874
80°	29675	21183	25414
85°	20254	18555	22015



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.5	5.0
10°-20°	521.2	14.0
20°-30°	726.3	19.5
30°-40°	748.4	20.1
40°-50°	620.2	16.7
50°-60°	445.7	12.0
60°-70°	283.9	7.6
70°-80°	145.8	3.9
80°-90°	37.1	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°	1435.0	38.6
0°-40°	2183.4	58.8
0°-60°	3249.3	87.4
0°-90°	3716.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3716.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1995	1995	1995	1995	1995	
5°	2076	2043	1982	1917	1890	199
15°	2118	2038	1847	1678	1614	597
25°	1955	1820	1549	1350	1275	896
35°	1522	1399	1157	1004	948	946
45°	991	921	779	679	647	767
55°	620	569	478	424	395	559
65°	368	328	268	234	244	368
75°	175	150	118	124	132	186
85°	32	30	30	32	35	41
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°	1994.8	1994.8	1994.8	1994.8	1994.8	1994.8	1994.8	1994.8	1994.8
2.5°	2032.5	2024.5	2013.7	2003.0	1986.8	1968.0	1952.0	1946.5	1938.5
5°	2075.5	2064.7	2043.2	2016.3	1981.5	1946.5	1917.0	1898.2	1890.2
7.5°	2102.3	2088.8	2059.3	2013.7	1962.7	1911.7	1868.7	1841.9	1831.1
10°	2107.6	2094.3	2054.0	1992.2	1925.0	1855.2	1801.6	1769.4	1755.9
12.5°	2115.8	2096.9	2045.8	1973.5	1887.5	1806.9	1739.8	1699.6	1686.1
15°	2118.4	2096.9	2037.8	1949.2	1847.2	1750.6	1678.1	1629.8	1613.6
17.5°	2107.6	2083.5	2013.7	1906.3	1790.9	1688.8	1602.9	1551.8	1530.3
20°	2070.1	2043.2	1962.7	1841.9	1715.6	1608.3	1519.7	1466.0	1441.8
22.5°	2021.8	1986.8	1895.5	1766.7	1635.1	1522.3	1433.7	1380.0	1355.9
25°	1954.6	1922.4	1820.4	1683.4	1549.2	1431.0	1350.5	1294.1	1275.4
27.5°	1876.7	1839.2	1734.4	1597.5	1460.5	1342.4	1264.6	1213.6	1189.4
30°	1772.1	1737.1	1632.4	1495.5	1361.2	1251.2	1170.6	1127.6	1116.9
32.5°	1648.6	1619.0	1517.0	1388.1	1259.2	1157.1	1090.1	1044.5	1033.7
35°	1522.3	1487.5	1398.9	1278.0	1157.1	1065.9	1004.2	963.9	947.8
37.5°	1385.4	1353.2	1278.0	1170.6	1063.3	977.3	923.7	888.7	872.6
40°	1240.4	1216.3	1146.4	1060.5	963.9	888.7	843.1	813.5	797.4
42.5°	1106.1	1082.0	1033.7	953.2	872.6	805.4	765.2	738.4	724.9
45°	990.7	969.2	920.9	851.1	778.6	722.2	679.3	660.5	647.1
47.5°	875.2	864.5	821.6	757.1	690.1	641.6	612.1	590.7	580.0
50°	786.7	773.2	732.9	665.8	609.5	571.8	545.0	526.3	515.5
52.5°	695.4	681.9	644.4	588.0	542.3	507.5	480.5	464.5	453.7
55°	620.3	609.5	569.2	518.2	478.0	448.4	424.2	405.4	394.7
57.5°	550.5	539.7	502.0	453.7	418.9	392.0	370.5	354.4	341.0
60°	486.0	478.0	440.3	394.7	365.2	338.4	319.5	306.1	298.0
62.5°	429.5	413.5	381.2	341.0	314.1	292.7	273.9	265.8	271.2
65°	367.9	359.7	327.6	292.7	268.4	247.1	233.6	238.9	244.3
67.5°	316.9	306.1	279.2	247.1	225.6	209.4	201.4	212.1	214.8
70°	265.8	255.1	230.9	204.1	185.3	174.6	174.6	182.6	185.3
72.5°	217.4	209.4	187.9	166.5	153.1	145.0	150.3	155.8	158.4
75°	174.6	166.5	150.3	131.6	118.1	118.1	123.5	128.8	131.6
77.5°	134.3	128.8	112.8	99.3	94.0	94.0	99.3	102.0	104.8
80°	94.0	88.6	80.5	72.5	67.1	72.5	77.8	77.8	80.5
82.5°	61.8	59.0	53.7	48.3	48.3	51.0	53.7	56.3	56.3
85°	32.2	32.2	29.5	26.8	29.5	32.2	32.2	35.0	35.0
87.5°	10.7	10.7	10.7	10.7	13.5	13.5	13.5	13.5	13.5
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)