

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: P582783

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

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582783
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: HC650D010-HM64560927-61RWWH
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4014.1 lumens
Efficiency: N/A
Efficacy: 83.6 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

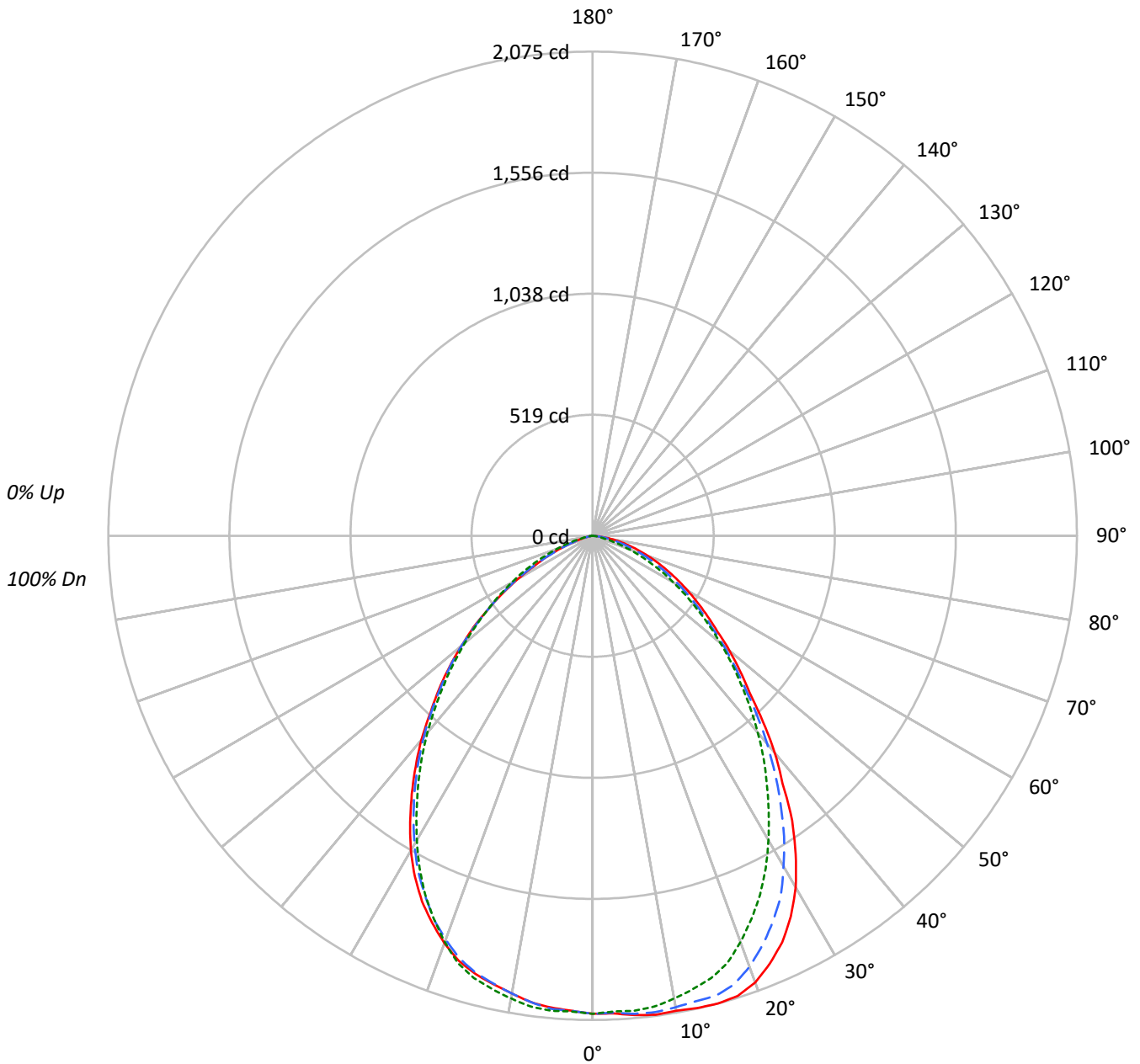
Input Watts (W): 48
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			
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°	112305	112305	112305
5°	113465	112431	111699
10°	115078	112089	110892
15°	117787	111385	110318
20°	118882	108072	108387
25°	116275	102641	104583
30°	110125	95344	98566
35°	99722	87147	90380
40°	86848	78776	81660
45°	73690	69728	72232
50°	65260	60911	62505
55°	57479	52089	51831
60°	51509	43856	40337
65°	45971	35179	28914
70°	40456	25389	18080
75°	34122	15356	10230
80°	26298	6787	4262
85°	15222	1698	1698



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.4	4.8
10°-20°	558.9	13.9
20°-30°	807.9	20.1
30°-40°	850.0	21.2
40°-50°	714.6	17.8
50°-60°	501.5	12.5
60°-70°	275.9	6.9
70°-80°	98.0	2.4
80°-90°	12.8	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°	1561.2	38.9
0°-40°	2411.2	60.1
0°-60°	3627.4	90.4
0°-90°	4014.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4014.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2049	2049	2049	2049	2049	
5°	2062	2057	2043	2035	2030	197
15°	2075	2040	1963	1938	1944	586
25°	1922	1826	1697	1700	1729	879
35°	1490	1404	1302	1329	1350	924
45°	950	924	899	921	932	746
55°	601	569	545	545	542	541
65°	354	317	271	223	223	353
75°	161	129	72	48	48	173
85°	24	14	3	3	3	33
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°	2048.6	2048.6	2048.6	2048.6	2048.6	2048.6	2048.6	2048.6	2048.6
2.5°	2048.6	2048.6	2045.8	2045.8	2040.5	2040.5	2037.8	2037.8	2037.8
5°	2061.9	2061.9	2056.6	2048.6	2043.1	2035.1	2035.1	2032.4	2029.8
7.5°	2070.1	2067.3	2059.3	2048.6	2035.1	2021.6	2016.3	2019.0	2016.3
10°	2067.3	2061.9	2051.2	2029.8	2013.6	1994.8	1992.1	1989.5	1992.1
12.5°	2072.7	2064.6	2043.1	2016.3	1989.5	1968.0	1965.3	1965.3	1968.0
15°	2075.4	2067.3	2040.5	2000.3	1962.6	1941.1	1938.5	1941.1	1943.8
17.5°	2067.3	2056.6	2016.3	1962.6	1919.7	1898.2	1898.2	1903.5	1909.0
20°	2037.8	2021.6	1965.3	1900.8	1852.5	1836.5	1841.8	1852.5	1857.9
22.5°	1984.1	1965.3	1900.8	1828.4	1777.4	1763.9	1777.4	1790.8	1796.2
25°	1922.3	1900.8	1825.7	1750.5	1696.9	1680.7	1699.5	1721.0	1729.0
27.5°	1839.2	1815.0	1745.2	1659.2	1605.6	1597.4	1618.9	1643.1	1648.4
30°	1739.7	1712.9	1635.1	1554.6	1506.2	1503.5	1527.6	1549.1	1557.1
32.5°	1618.9	1594.8	1527.6	1447.1	1404.2	1404.2	1428.3	1447.1	1455.2
35°	1490.1	1463.3	1404.2	1337.0	1302.2	1304.9	1329.0	1342.4	1350.5
37.5°	1337.0	1329.0	1283.4	1226.9	1202.8	1208.2	1226.9	1237.7	1245.7
40°	1213.6	1192.1	1162.6	1116.9	1100.8	1106.1	1124.9	1135.6	1141.1
42.5°	1079.3	1065.9	1041.8	1009.5	998.8	1006.8	1023.0	1031.0	1028.3
45°	950.5	947.8	923.5	904.8	899.4	910.2	920.9	929.0	931.7
47.5°	856.5	845.7	824.2	810.9	805.4	816.2	826.9	832.3	832.3
50°	765.2	754.4	732.9	719.6	714.2	724.9	732.9	738.4	732.9
52.5°	673.9	663.1	644.4	628.3	625.6	630.9	633.6	636.3	641.6
55°	601.4	590.6	569.2	550.3	545.0	547.7	545.0	545.0	542.3
57.5°	531.6	520.8	499.3	478.0	469.8	467.2	459.1	456.5	453.7
60°	469.8	456.5	435.0	410.8	400.0	389.3	375.9	367.9	367.9
62.5°	410.8	397.4	373.2	351.7	335.6	316.9	295.4	284.6	284.6
65°	354.4	343.7	316.9	292.7	271.2	246.9	222.9	217.4	222.9
67.5°	300.7	289.9	263.1	238.9	212.1	182.6	161.1	161.1	166.4
70°	252.4	241.6	217.4	187.9	158.4	128.8	112.8	112.8	112.8
72.5°	206.7	196.0	169.1	142.3	112.8	83.3	75.2	77.8	75.2
75°	161.1	153.1	128.8	99.3	72.5	51.0	48.3	45.6	48.3
77.5°	120.8	112.8	91.3	64.5	40.3	29.5	26.8	26.8	26.8
80°	83.3	75.2	59.0	37.6	21.5	13.5	13.5	13.5	13.5
82.5°	51.0	43.0	32.2	18.8	8.0	8.0	8.0	8.0	8.0
85°	24.2	18.8	13.5	5.3	2.7	2.7	2.7	2.7	2.7
87.5°	5.3	5.3	2.7	2.7	0.0	2.7	2.7	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)