

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: P582657

Luminaire Tested: **HC645D010-HM64560930-61RWWH**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582657
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: HC645D010-HM64560930-61RWWH
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: 4531.3 lumens
Efficiency: N/A
Efficacy: 103.0 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

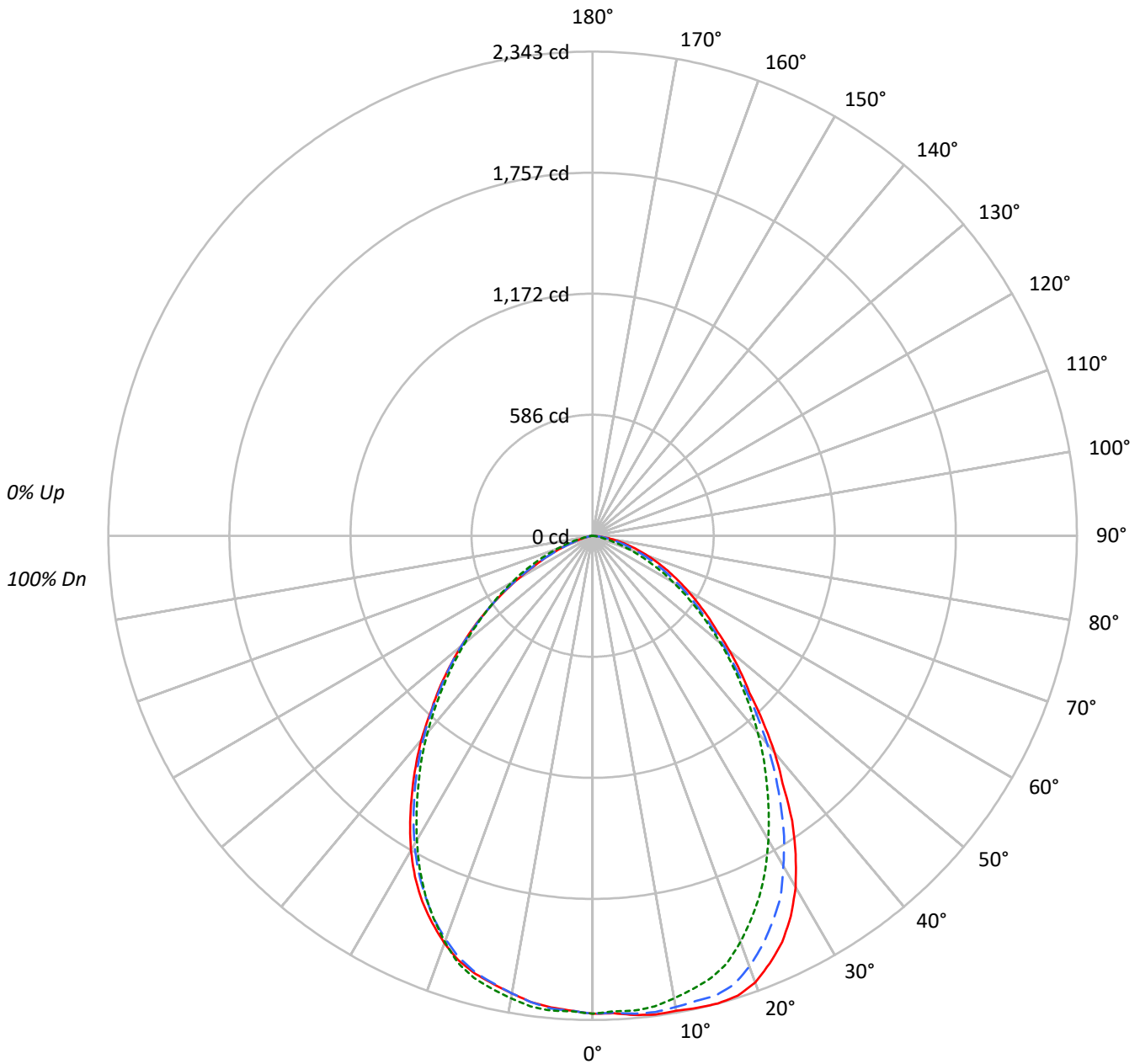
Input Watts (W): 44
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			
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°	126777	126777	126777
5°	128092	126926	126089
10°	129907	126540	125187
15°	132963	125744	124535
20°	134202	121997	122353
25°	131258	115864	118065
30°	124323	107630	111277
35°	112571	98377	102024
40°	98034	88931	92180
45°	83179	78714	81536
50°	73669	68757	70565
55°	64887	58798	58512
60°	58153	49514	45523
65°	51899	39719	32636
70°	45665	28659	20404
75°	38507	17347	11544
80°	29675	7671	4767
85°	17171	1887	1887



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.5	4.8
10°-20°	630.9	13.9
20°-30°	912.0	20.1
30°-40°	959.6	21.2
40°-50°	806.7	17.8
50°-60°	566.2	12.5
60°-70°	311.5	6.9
70°-80°	110.6	2.4
80°-90°	14.5	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°	1762.4	38.9
0°-40°	2722.0	60.1
0°-60°	4094.8	90.4
0°-90°	4531.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4531.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2313	2313	2313	2313	2313	
5°	2328	2322	2306	2297	2291	222
15°	2343	2303	2216	2188	2194	661
25°	2170	2061	1916	1919	1952	993
35°	1682	1585	1470	1500	1524	1043
45°	1073	1043	1015	1040	1052	842
55°	679	643	615	615	612	611
65°	400	358	306	252	252	398
75°	182	146	82	54	54	195
85°	27	15	3	3	3	38
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°	2312.6	2312.6	2312.6	2312.6	2312.6	2312.6	2312.6	2312.6	2312.6
2.5°	2312.6	2312.6	2309.5	2309.5	2303.4	2303.4	2300.4	2300.4	2300.4
5°	2327.7	2327.7	2321.6	2312.6	2306.5	2297.3	2297.3	2294.4	2291.3
7.5°	2336.7	2333.7	2324.7	2312.6	2297.3	2282.2	2276.2	2279.1	2276.2
10°	2333.7	2327.7	2315.5	2291.3	2273.2	2251.9	2248.9	2245.8	2248.9
12.5°	2339.8	2330.8	2306.5	2276.2	2245.8	2221.5	2218.6	2218.6	2221.5
15°	2342.8	2333.7	2303.4	2258.0	2215.6	2191.3	2188.2	2191.3	2194.3
17.5°	2333.7	2321.6	2276.2	2215.6	2167.0	2142.8	2142.8	2148.8	2154.9
20°	2300.4	2282.2	2218.6	2145.9	2091.2	2073.0	2079.1	2091.2	2097.3
22.5°	2239.7	2218.6	2145.9	2064.0	2006.4	1991.3	2006.4	2021.5	2027.6
25°	2170.0	2145.9	2061.0	1976.2	1915.5	1897.3	1918.6	1942.7	1951.9
27.5°	2076.1	2048.9	1970.1	1873.0	1812.4	1803.4	1827.5	1854.9	1861.0
30°	1964.0	1933.7	1845.8	1754.8	1700.3	1697.2	1724.5	1748.8	1757.9
32.5°	1827.5	1800.3	1724.5	1633.6	1585.1	1585.1	1612.4	1633.6	1642.7
35°	1682.1	1651.8	1585.1	1509.3	1470.0	1472.9	1500.3	1515.4	1524.5
37.5°	1509.3	1500.3	1448.8	1385.1	1357.9	1363.8	1385.1	1397.2	1406.3
40°	1369.9	1345.7	1312.4	1260.9	1242.7	1248.7	1269.9	1282.1	1288.1
42.5°	1218.4	1203.3	1175.9	1139.6	1127.5	1136.5	1154.7	1163.9	1160.8
45°	1072.9	1069.9	1042.6	1021.4	1015.3	1027.4	1039.6	1048.7	1051.7
47.5°	966.8	954.7	930.4	915.3	909.2	921.4	933.5	939.6	939.6
50°	863.8	851.7	827.4	812.3	806.2	818.3	827.4	833.5	827.4
52.5°	760.7	748.6	727.4	709.2	706.1	712.2	715.3	718.3	724.3
55°	678.9	666.7	642.6	621.3	615.2	618.3	615.2	615.2	612.2
57.5°	600.1	588.0	563.7	539.5	530.4	527.4	518.2	515.3	512.2
60°	530.4	515.3	491.0	463.7	451.6	439.5	424.3	415.2	415.2
62.5°	463.7	448.6	421.3	397.1	378.9	357.6	333.4	321.3	321.3
65°	400.1	387.9	357.6	330.3	306.2	278.8	251.6	245.5	251.6
67.5°	339.5	327.4	297.0	269.8	239.4	206.1	181.8	181.8	187.9
70°	284.9	272.7	245.5	212.2	178.8	145.5	127.3	127.3	127.3
72.5°	233.4	221.2	191.0	160.6	127.3	94.0	84.8	87.9	84.8
75°	181.8	172.8	145.5	112.1	81.9	57.6	54.5	51.5	54.5
77.5°	136.4	127.3	103.1	72.7	45.5	33.3	30.3	30.3	30.3
80°	94.0	84.8	66.6	42.5	24.3	15.1	15.1	15.1	15.1
82.5°	57.6	48.4	36.4	21.2	9.1	9.1	9.1	9.1	9.1
85°	27.3	21.2	15.1	6.1	3.0	3.0	3.0	3.0	3.0
87.5°	6.1	6.1	3.0	3.0	0.0	3.0	3.0	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)