

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: P582584

Luminaire Tested: **HC645D010-HM64560830-61RWWC**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582584
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC645D010-HM64560830-61RWWC
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4909.6 lumens
Efficiency: N/A
Efficacy: 111.6 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.15 / 1.2
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

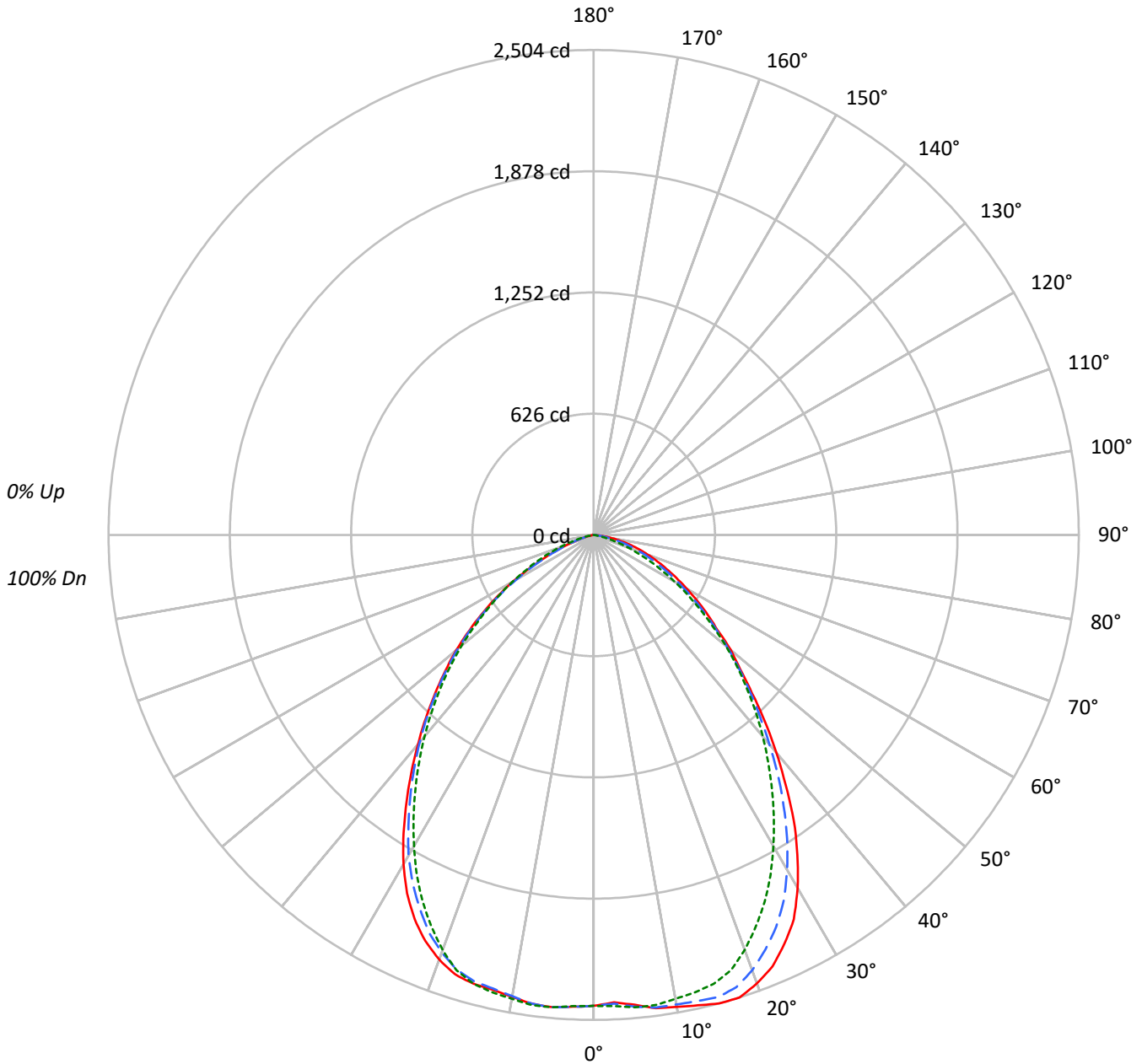
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	94	92	90	88																			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77																			
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	69	68																			
4	88	78	70	64	86	76	69	64	74	68	63	72	67	62	70	65	61	60																			
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	62	55	50	60	54	49	58	53	49	47																			
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	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°	133317	133317	133317
5°	134003	134729	134729
10°	137756	135374	134817
15°	142135	136147	136147
20°	143793	133023	136104
25°	140917	126364	132346
30°	133293	117436	124323
35°	120622	107398	112685
40°	104939	97153	100925
45°	89668	86598	89668
50°	78693	75878	78974
55°	68652	63940	66444
60°	60686	53099	52386
65°	53858	41885	35905
70°	47524	29572	21654
75°	40477	16754	10463
80°	30181	5177	3125
85°	16605	2076	2076



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.3	4.8
10°-20°	682.5	13.9
20°-30°	996.8	20.3
30°-40°	1045.4	21.3
40°-50°	880.7	17.9
50°-60°	617.1	12.6
60°-70°	330.8	6.7
70°-80°	110.9	2.3
80°-90°	12.1	0.2
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°	1912.6	39.0
0°-40°	2957.9	60.2
0°-60°	4455.7	90.8
0°-90°	4909.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4909.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2432	2432	2432	2432	2432	
5°	2435	2445	2448	2448	2448	234
15°	2504	2471	2399	2386	2399	706
25°	2330	2231	2089	2125	2188	1067
35°	1802	1710	1605	1651	1684	1119
45°	1157	1137	1117	1147	1157	901
55°	718	695	669	682	695	647
65°	415	379	323	267	277	415
75°	191	148	79	49	49	203
85°	26	13	3	3	3	36
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°	2431.9	2431.9	2431.9	2431.9	2431.9	2431.9	2431.9	2431.9	2431.9
2.5°	2415.3	2415.3	2421.9	2428.6	2435.1	2435.1	2438.4	2441.7	2438.4
5°	2435.1	2435.1	2445.0	2448.3	2448.3	2445.0	2448.3	2448.3	2448.3
7.5°	2464.8	2458.1	2461.5	2454.9	2448.3	2445.0	2441.7	2441.7	2441.7
10°	2474.7	2468.1	2461.5	2448.3	2431.9	2421.9	2418.6	2421.9	2421.9
12.5°	2487.8	2481.2	2464.8	2438.4	2418.6	2402.2	2398.9	2405.5	2405.5
15°	2504.4	2497.8	2471.4	2428.6	2398.9	2382.4	2385.6	2392.3	2398.9
17.5°	2504.4	2491.1	2448.3	2392.3	2356.1	2339.5	2352.7	2369.2	2379.1
20°	2464.8	2451.6	2392.3	2323.1	2280.2	2270.3	2293.4	2323.1	2333.0
22.5°	2412.0	2385.6	2316.4	2234.1	2188.0	2188.0	2221.0	2257.2	2270.3
25°	2329.7	2309.9	2230.8	2135.2	2089.1	2085.8	2125.4	2174.9	2188.0
27.5°	2237.4	2211.1	2125.4	2026.5	1977.1	1980.4	2023.2	2072.7	2085.8
30°	2105.7	2072.7	1996.9	1901.3	1855.2	1868.4	1911.2	1947.4	1964.0
32.5°	1957.3	1927.7	1858.5	1769.5	1729.9	1743.2	1779.4	1812.3	1825.5
35°	1802.4	1769.5	1710.2	1631.1	1604.8	1617.9	1650.9	1677.3	1683.8
37.5°	1627.8	1604.8	1561.8	1499.3	1479.5	1496.0	1522.3	1538.9	1545.4
40°	1466.4	1446.5	1410.3	1364.2	1357.6	1370.8	1397.2	1407.0	1410.3
42.5°	1308.1	1291.7	1268.6	1235.6	1235.6	1248.9	1271.9	1278.6	1281.9
45°	1156.6	1146.7	1136.9	1110.5	1117.0	1133.6	1146.7	1156.6	1156.6
47.5°	1024.9	1028.1	1014.9	995.2	1001.7	1018.2	1028.1	1038.0	1038.0
50°	922.7	912.7	899.6	879.8	889.7	902.9	916.0	922.7	926.0
52.5°	804.0	800.7	790.8	767.7	774.4	781.0	794.1	804.0	807.3
55°	718.3	708.5	695.2	669.0	669.0	675.5	682.1	688.7	695.2
57.5°	636.0	626.0	606.3	576.6	573.4	573.4	570.1	576.6	586.5
60°	553.5	550.3	520.6	494.3	484.3	474.5	461.3	464.6	477.8
62.5°	481.0	474.5	448.1	415.2	395.4	379.0	362.5	359.2	372.3
65°	415.2	408.6	379.0	346.0	322.9	293.2	266.9	266.9	276.8
67.5°	355.9	342.8	316.4	280.1	250.4	214.2	187.8	194.4	197.8
70°	296.5	286.7	257.0	220.8	184.5	148.3	131.8	135.1	135.1
72.5°	243.9	230.6	201.1	164.8	128.6	95.6	88.9	85.6	85.6
75°	191.1	177.9	148.3	112.0	79.1	56.1	49.4	49.4	49.4
77.5°	138.4	128.6	102.2	69.2	42.8	26.4	23.1	19.8	19.8
80°	95.6	85.6	62.6	36.2	16.4	9.9	9.9	9.9	9.9
82.5°	56.1	46.1	29.7	16.4	6.6	3.3	3.3	3.3	3.3
85°	26.4	19.8	13.1	6.6	3.3	3.3	3.3	3.3	3.3
87.5°	3.3	3.3	3.3	0.0	0.0	0.0	0.0	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)