

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: P580704

Luminaire Tested: **HC445D010-HM44560827-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580704
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC445D010-HM44560827-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4028.6 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

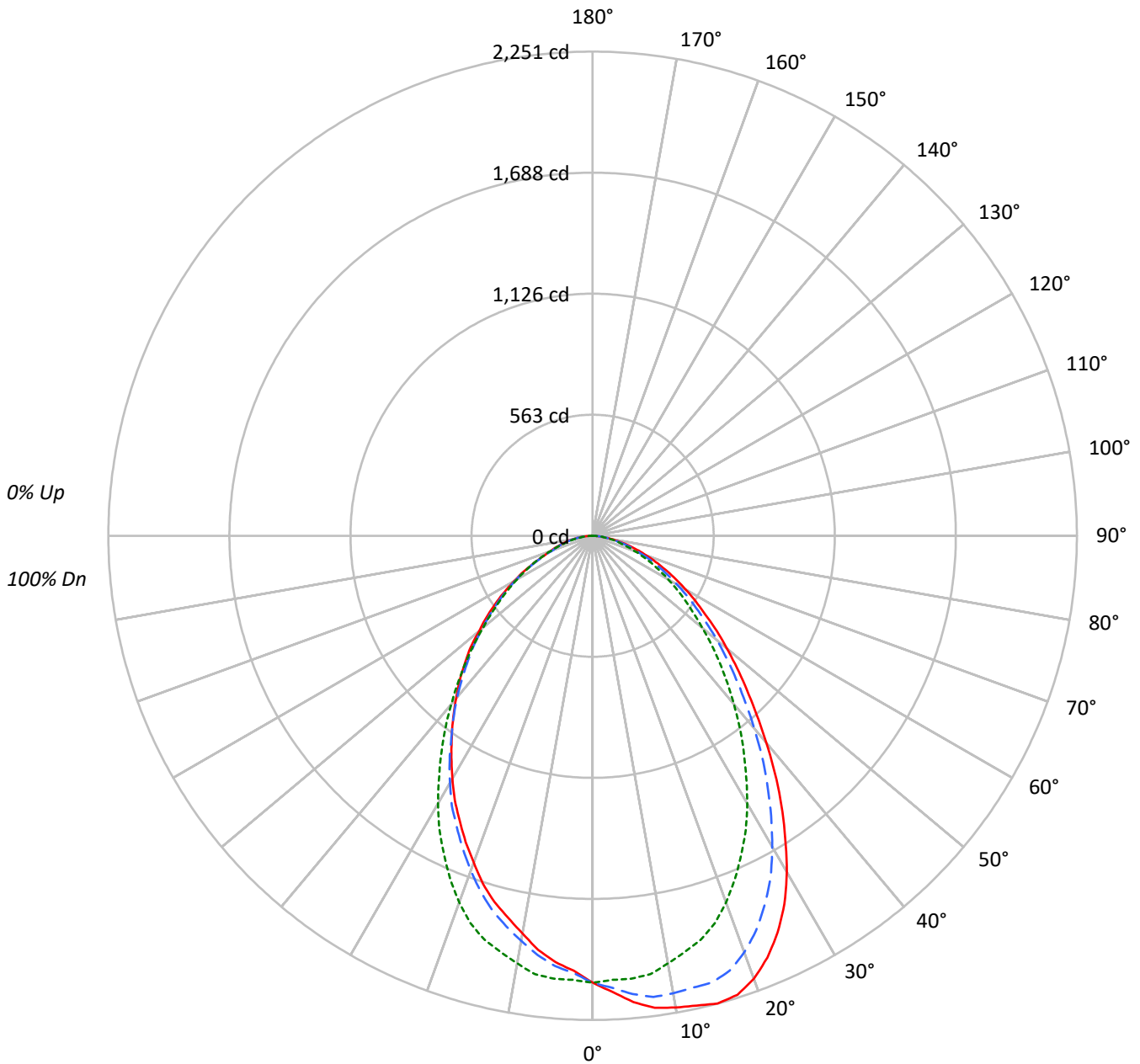
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58																			
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51																			
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46																			
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41																			
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	256226	256226	256226
5°	269413	255880	246309
10°	278878	252826	235129
15°	287394	248243	225091
20°	287712	238017	212106
25°	276903	222464	198878
30°	257124	204711	185725
35°	230473	184307	171854
40°	202236	164462	158875
45°	176757	145603	146510
50°	156066	127416	132022
55°	137630	112964	118706
60°	123000	99984	103931
65°	108952	87967	87967
70°	95209	75013	75013
75°	81351	63527	71152
80°	64426	56826	64426
85°	41466	49109	60289



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.8	4.9
10°-20°	554.3	13.8
20°-30°	776.5	19.3
30°-40°	800.0	19.9
40°-50°	681.1	16.9
50°-60°	504.6	12.5
60°-70°	316.7	7.9
70°-80°	157.4	3.9
80°-90°	41.3	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°	1527.5	37.9
0°-40°	2327.5	57.8
0°-60°	3513.2	87.2
0°-90°	4028.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4028.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2077	2077	2077	2077	2077	
5°	2176	2139	2067	2008	1989	209
15°	2251	2149	1944	1803	1763	633
25°	2035	1893	1635	1493	1461	931
35°	1531	1416	1224	1144	1141	954
45°	1013	944	835	819	840	786
55°	640	589	525	536	552	579
65°	373	336	301	296	301	372
75°	171	152	133	144	149	182
85°	29	29	35	40	43	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°	2077.3	2077.3	2077.3	2077.3	2077.3	2077.3	2077.3	2077.3	2077.3
2.5°	2122.6	2114.6	2104.0	2085.2	2066.6	2050.6	2034.6	2026.6	2024.0
5°	2175.9	2160.0	2138.6	2104.0	2066.6	2034.6	2007.9	1994.6	1989.3
7.5°	2213.3	2197.3	2162.7	2109.2	2056.0	2007.9	1965.3	1946.6	1941.3
10°	2226.6	2208.0	2160.0	2087.9	2018.6	1959.9	1912.0	1888.0	1877.3
12.5°	2237.3	2213.3	2152.0	2066.6	1981.2	1909.3	1858.6	1826.6	1818.6
15°	2250.6	2223.9	2149.3	2045.3	1944.0	1858.6	1802.6	1773.3	1762.7
17.5°	2237.3	2208.0	2119.9	2002.7	1888.0	1794.6	1733.3	1706.7	1695.9
20°	2191.9	2160.0	2061.2	1935.9	1813.3	1717.3	1656.0	1629.3	1615.9
22.5°	2122.6	2087.9	1986.6	1853.3	1728.0	1634.6	1576.0	1549.3	1541.3
25°	2034.6	2000.0	1893.3	1757.3	1634.6	1544.0	1493.3	1469.3	1461.3
27.5°	1930.6	1896.0	1791.9	1658.7	1541.3	1455.9	1416.0	1392.0	1386.7
30°	1805.3	1770.6	1669.3	1546.7	1437.3	1357.3	1325.3	1306.7	1304.0
32.5°	1666.6	1637.3	1544.0	1432.0	1328.0	1261.4	1237.3	1224.0	1221.3
35°	1530.6	1498.7	1416.0	1314.6	1224.0	1165.3	1144.0	1141.3	1141.3
37.5°	1392.0	1360.0	1293.3	1200.0	1122.7	1069.3	1061.3	1064.0	1064.0
40°	1256.0	1226.7	1168.0	1090.6	1021.4	981.3	978.6	984.0	986.7
42.5°	1127.9	1103.9	1050.6	984.0	925.3	893.3	896.0	906.7	914.7
45°	1013.3	992.0	943.9	885.3	834.7	810.6	818.6	832.0	839.9
47.5°	909.3	890.6	845.3	792.0	749.3	733.3	744.0	759.9	770.6
50°	813.3	797.3	754.7	698.7	664.0	653.3	666.7	682.6	688.0
52.5°	728.0	712.0	666.7	618.7	592.0	586.7	599.9	613.3	621.4
55°	640.0	626.6	589.3	546.6	525.3	522.6	536.0	546.6	552.0
57.5°	568.0	554.6	519.9	482.7	463.9	461.4	474.6	482.7	485.3
60°	498.6	485.3	453.3	418.6	405.3	405.3	413.3	418.6	421.3
62.5°	434.7	421.3	392.0	362.6	352.0	352.0	352.0	354.7	362.6
65°	373.3	362.6	336.0	309.3	301.4	296.0	296.0	296.0	301.4
67.5°	317.3	306.6	285.3	261.3	253.3	245.4	242.7	248.0	248.0
70°	264.0	256.0	234.6	216.0	208.0	199.9	197.4	208.0	208.0
72.5°	216.0	208.0	194.7	176.0	168.0	165.4	170.7	176.0	178.6
75°	170.7	162.7	152.0	141.4	133.3	136.0	144.0	146.6	149.3
77.5°	128.0	125.3	114.7	106.7	106.7	109.3	114.7	119.9	122.6
80°	90.7	88.0	82.7	77.3	80.0	85.4	88.0	93.4	90.7
82.5°	56.0	56.0	53.3	53.3	56.0	61.4	64.0	66.6	69.3
85°	29.3	29.3	29.3	32.0	34.7	37.4	39.9	42.6	42.6
87.5°	8.0	10.7	10.7	13.4	16.0	16.0	18.6	18.6	18.6
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)