

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: P582593

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

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582593
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC645D010-HM64560830-61WWWB
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4721.7 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

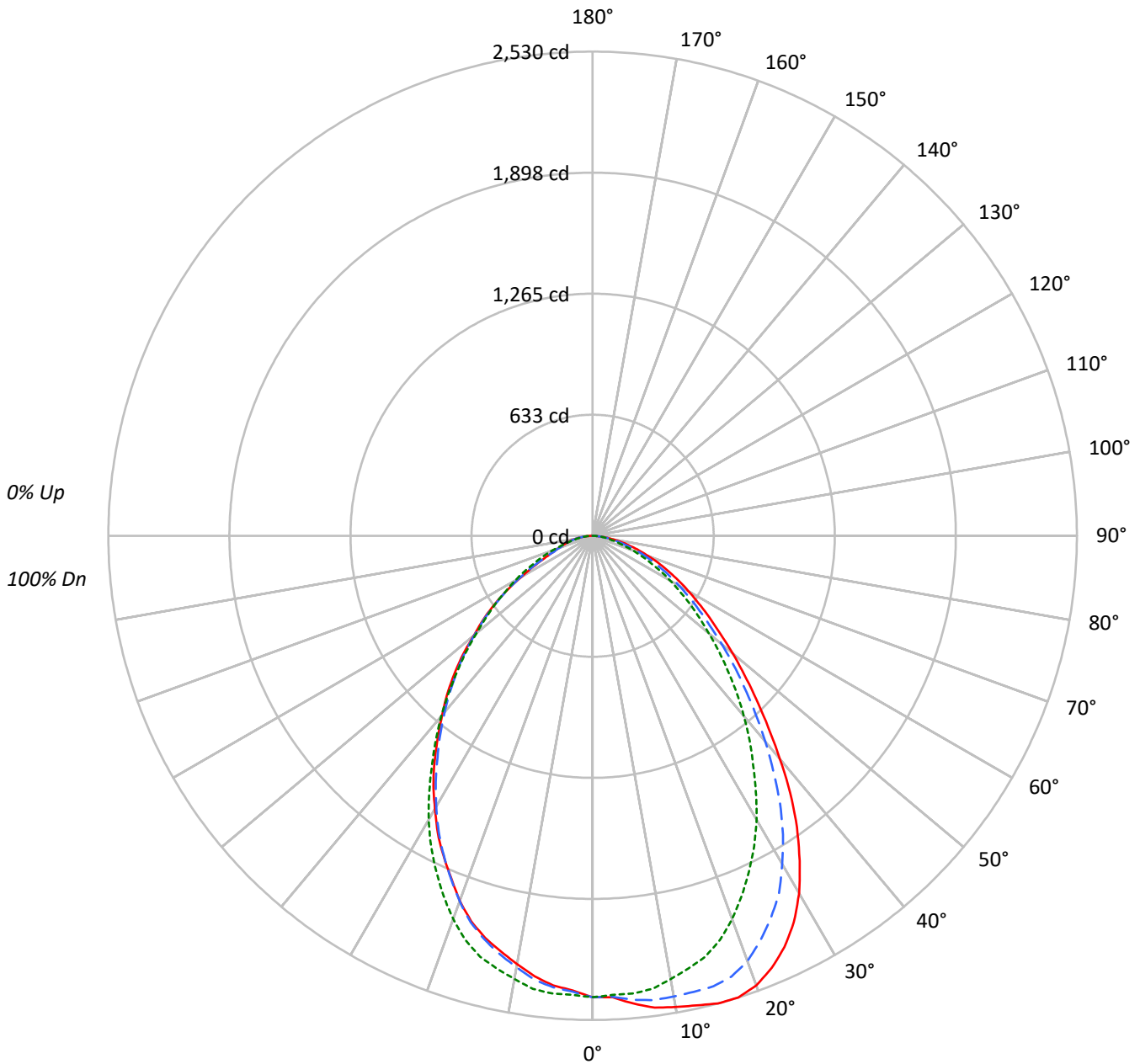
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76																			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66																			
4	87	77	69	63	85	75	68	63	73	67	62	71	65	61	69	64	60	58																			
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52																			
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46																			
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42																			
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38																			
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34																			
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	132177	132177	132177
5°	135037	132132	129776
10°	139165	130909	126512
15°	143571	129172	123378
20°	145846	124325	118363
25°	143452	116952	111569
30°	136572	108422	104250
35°	124544	97875	96329
40°	108897	87922	87450
45°	93715	77372	79163
50°	81464	67418	68825
55°	71147	59181	59811
60°	63197	51279	46937
65°	56400	43156	35892
70°	49640	35359	30101
75°	42552	27895	28594
80°	34316	23930	28065
85°	22769	20757	24845



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.3	4.8
10°-20°	649.9	13.8
20°-30°	927.7	19.6
30°-40°	971.8	20.6
40°-50°	818.2	17.3
50°-60°	582.3	12.3
60°-70°	340.8	7.2
70°-80°	161.3	3.4
80°-90°	41.5	0.9
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°	1805.9	38.2
0°-40°	2777.6	58.8
0°-60°	4178.1	88.5
0°-90°	4721.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4721.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2411	2411	2411	2411	2411	
5°	2454	2434	2401	2368	2358	236
15°	2530	2437	2276	2184	2174	714
25°	2372	2204	1934	1841	1844	1085
35°	1861	1706	1462	1413	1439	1156
45°	1209	1120	998	1001	1021	938
55°	744	682	619	619	626	671
65°	435	385	333	280	277	434
75°	201	168	132	128	135	216
85°	36	30	33	40	40	47
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°	2411.1	2411.1	2411.1	2411.1	2411.1	2411.1	2411.1	2411.1	2411.1
2.5°	2414.4	2414.4	2411.1	2407.8	2401.1	2391.3	2384.7	2378.1	2378.1
5°	2453.9	2447.3	2434.1	2417.7	2401.1	2381.4	2368.3	2358.3	2358.3
7.5°	2486.9	2473.6	2447.3	2417.7	2388.0	2361.7	2338.6	2325.5	2322.2
10°	2500.0	2483.5	2444.1	2397.8	2351.7	2315.5	2289.2	2272.7	2272.7
12.5°	2513.2	2493.4	2440.7	2374.9	2315.5	2266.1	2239.8	2226.6	2223.3
15°	2529.7	2503.3	2437.4	2355.0	2276.0	2220.0	2183.8	2173.9	2173.9
17.5°	2529.7	2496.7	2414.4	2312.2	2213.5	2150.8	2118.0	2108.0	2111.3
20°	2500.0	2463.8	2365.0	2239.8	2131.1	2065.2	2032.2	2025.7	2028.9
22.5°	2444.1	2401.1	2289.2	2154.1	2035.6	1966.4	1936.7	1936.7	1933.5
25°	2371.6	2325.5	2203.6	2061.9	1933.5	1864.2	1841.3	1844.5	1844.5
27.5°	2276.0	2229.9	2108.0	1956.6	1828.1	1758.9	1742.4	1749.1	1752.3
30°	2157.5	2108.0	1979.6	1831.4	1712.8	1643.6	1633.8	1643.6	1646.9
32.5°	2012.5	1976.3	1851.1	1699.6	1587.7	1528.3	1525.0	1534.9	1548.1
35°	1861.0	1821.4	1706.2	1567.8	1462.5	1413.0	1413.0	1429.5	1439.4
37.5°	1696.3	1656.7	1551.4	1436.1	1347.2	1301.1	1307.7	1324.1	1327.4
40°	1521.7	1492.1	1403.1	1304.4	1228.6	1192.4	1202.2	1218.7	1222.0
42.5°	1357.0	1330.7	1258.3	1169.2	1113.3	1086.9	1100.2	1119.9	1126.4
45°	1208.8	1179.2	1119.9	1044.1	998.0	984.9	1001.3	1014.5	1021.1
47.5°	1073.8	1047.5	998.0	928.9	895.9	889.4	905.8	912.4	918.9
50°	955.2	928.9	879.4	816.9	790.5	790.5	803.7	810.3	807.0
52.5°	839.9	816.9	770.8	718.0	701.6	701.6	711.4	714.7	721.4
55°	744.4	721.4	681.9	632.4	619.2	612.7	619.2	619.2	625.8
57.5°	655.5	635.6	599.5	553.3	536.9	530.3	527.0	523.7	530.3
60°	576.4	560.0	520.5	480.9	467.7	451.3	438.1	424.9	428.1
62.5°	503.9	487.5	451.3	411.7	398.6	375.5	359.1	342.5	349.2
65°	434.8	418.3	385.3	352.5	332.7	306.3	280.0	270.1	276.7
67.5°	372.2	359.1	326.1	293.1	276.7	247.0	220.6	220.6	223.9
70°	309.7	296.4	270.1	240.5	220.6	194.4	184.4	187.8	187.8
72.5°	253.6	243.7	217.4	191.1	171.3	154.8	154.8	158.1	161.4
75°	200.9	194.4	168.0	145.0	131.7	121.9	128.4	131.7	135.0
77.5°	154.8	145.0	125.2	108.7	98.8	102.1	108.7	112.0	115.3
80°	108.7	105.5	88.9	79.1	75.8	79.1	85.6	88.9	88.9
82.5°	69.2	65.9	56.0	52.7	52.7	56.0	62.6	62.6	62.6
85°	36.2	33.0	29.7	29.7	33.0	36.2	39.5	39.5	39.5
87.5°	13.1	9.9	13.1	13.1	16.4	16.4	16.4	16.4	16.4
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)