

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: P592961

Luminaire Tested: **HC460D010-HM44560850-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592961  
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: HC460D010-HM44560850-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5907.0 lumens  
Efficiency: N/A  
Efficacy: 107.4 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

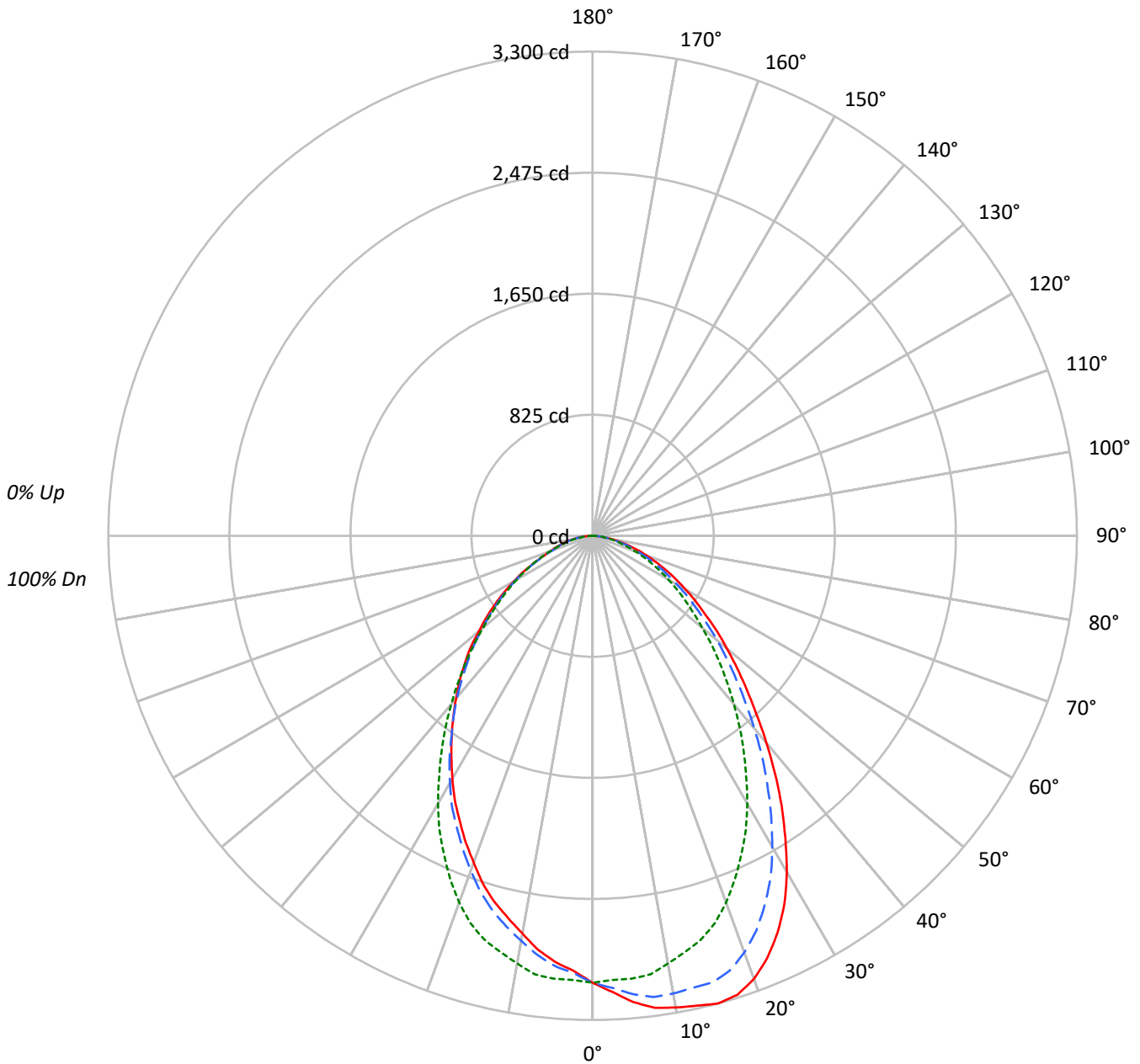
Input Watts (W): 55  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	375686	375686	375686
5°	395037	375202	361149
10°	408911	370723	344771
15°	421399	363974	330032
20°	421875	348999	311025
25°	406018	326197	291601
30°	377019	300151	272321
35°	337940	270226	251991
40°	296528	241122	232942
45°	259179	213476	214854
50°	228831	186826	193580
55°	201800	165650	174037
60°	180381	146609	152406
65°	159765	128944	128944
70°	139603	109995	109995
75°	119238	93170	104321
80°	94472	83320	94472
85°	60855	72035	88594



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	288.6	4.9
10°-20°	812.7	13.8
20°-30°	1138.5	19.3
30°-40°	1173.0	19.9
40°-50°	998.6	16.9
50°-60°	739.9	12.5
60°-70°	464.4	7.9
70°-80°	230.7	3.9
80°-90°	60.6	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°	2239.8	37.9
0°-40°	3412.8	57.8
0°-60°	5151.3	87.2
0°-90°	5907.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5907.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3046	3046	3046	3046	3046	
5°	3190	3136	3030	2944	2917	307
15°	3300	3151	2850	2643	2584	928
25°	2983	2776	2397	2190	2143	1364
35°	2244	2076	1795	1677	1674	1399
45°	1486	1384	1224	1200	1232	1153
55°	938	864	770	786	809	848
65°	547	493	442	434	442	546
75°	250	223	196	211	219	267
85°	43	43	51	59	63	55
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°	3045.8	3045.8	3045.8	3045.8	3045.8	3045.8	3045.8	3045.8	3045.8
2.5°	3112.4	3100.6	3085.0	3057.6	3030.3	3006.8	2983.3	2971.6	2967.7
5°	3190.5	3167.1	3135.7	3085.0	3030.3	2983.3	2944.2	2924.7	2916.8
7.5°	3245.3	3221.8	3170.9	3092.8	3014.6	2944.2	2881.6	2854.3	2846.4
10°	3264.8	3237.5	3167.1	3061.5	2959.9	2873.8	2803.4	2768.2	2752.7
12.5°	3280.4	3245.3	3155.4	3030.3	2905.1	2799.5	2725.2	2678.3	2666.6
15°	3300.0	3260.9	3151.4	2998.9	2850.3	2725.2	2643.1	2600.2	2584.5
17.5°	3280.4	3237.5	3108.4	2936.4	2768.2	2631.4	2541.5	2502.4	2486.7
20°	3214.0	3167.1	3022.4	2838.6	2658.8	2518.0	2428.1	2389.0	2369.5
22.5°	3112.4	3061.5	2912.9	2717.5	2533.6	2396.8	2310.8	2271.7	2259.9
25°	2983.3	2932.5	2776.1	2576.7	2396.8	2263.9	2189.6	2154.4	2142.6
27.5°	2830.8	2780.0	2627.5	2432.0	2259.9	2134.9	2076.2	2041.0	2033.2
30°	2647.1	2596.2	2447.6	2267.7	2107.4	1990.1	1943.2	1915.9	1912.0
32.5°	2443.7	2400.7	2263.9	2099.7	1947.2	1849.4	1814.2	1794.6	1790.8
35°	2244.3	2197.3	2076.2	1927.6	1794.6	1708.7	1677.3	1673.5	1673.5
37.5°	2041.0	1994.1	1896.3	1759.5	1646.1	1567.9	1556.2	1560.0	1560.0
40°	1841.6	1798.6	1712.5	1599.2	1497.5	1438.9	1434.9	1442.8	1446.7
42.5°	1653.9	1618.7	1540.5	1442.8	1356.8	1309.8	1313.8	1329.3	1341.1
45°	1485.8	1454.6	1384.2	1298.1	1223.8	1188.6	1200.3	1219.9	1231.7
47.5°	1333.3	1305.9	1239.4	1161.3	1098.7	1075.2	1090.9	1114.4	1130.0
50°	1192.5	1169.1	1106.6	1024.4	973.6	957.9	977.5	1001.0	1008.8
52.5°	1067.4	1044.0	977.5	907.1	868.0	860.2	879.7	899.2	911.0
55°	938.4	918.9	864.0	801.6	770.3	766.4	785.9	801.6	809.3
57.5°	832.8	813.3	762.4	707.7	680.3	676.5	696.0	707.7	711.7
60°	731.2	711.7	664.7	613.9	594.3	594.3	606.1	613.9	617.8
62.5°	637.3	617.8	574.7	531.7	516.1	516.1	516.1	520.0	531.7
65°	547.4	531.7	492.7	453.6	441.8	434.1	434.1	434.1	441.8
67.5°	465.3	449.6	418.4	383.2	371.5	359.7	355.8	363.7	363.7
70°	387.1	375.4	344.0	316.7	305.0	293.3	289.3	305.0	305.0
72.5°	316.7	305.0	285.4	258.1	246.4	242.4	250.2	258.1	261.9
75°	250.2	238.5	222.9	207.2	195.5	199.4	211.2	215.0	218.9
77.5°	187.7	183.8	168.1	156.5	156.5	160.3	168.1	176.0	179.8
80°	133.0	129.0	121.3	113.4	117.3	125.1	129.0	136.8	133.0
82.5°	82.1	82.1	78.2	78.2	82.1	89.9	93.8	97.8	101.6
85°	43.0	43.0	43.0	46.9	50.9	54.7	58.7	62.6	62.6
87.5°	11.7	15.7	15.7	19.5	23.5	23.5	27.4	27.4	27.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)