

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: P581298

Luminaire Tested: **HC460D010-HM44560830-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581298  
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-HM44560830-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" 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: 5153.9 lumens  
Efficiency: N/A  
Efficacy: 93.7 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

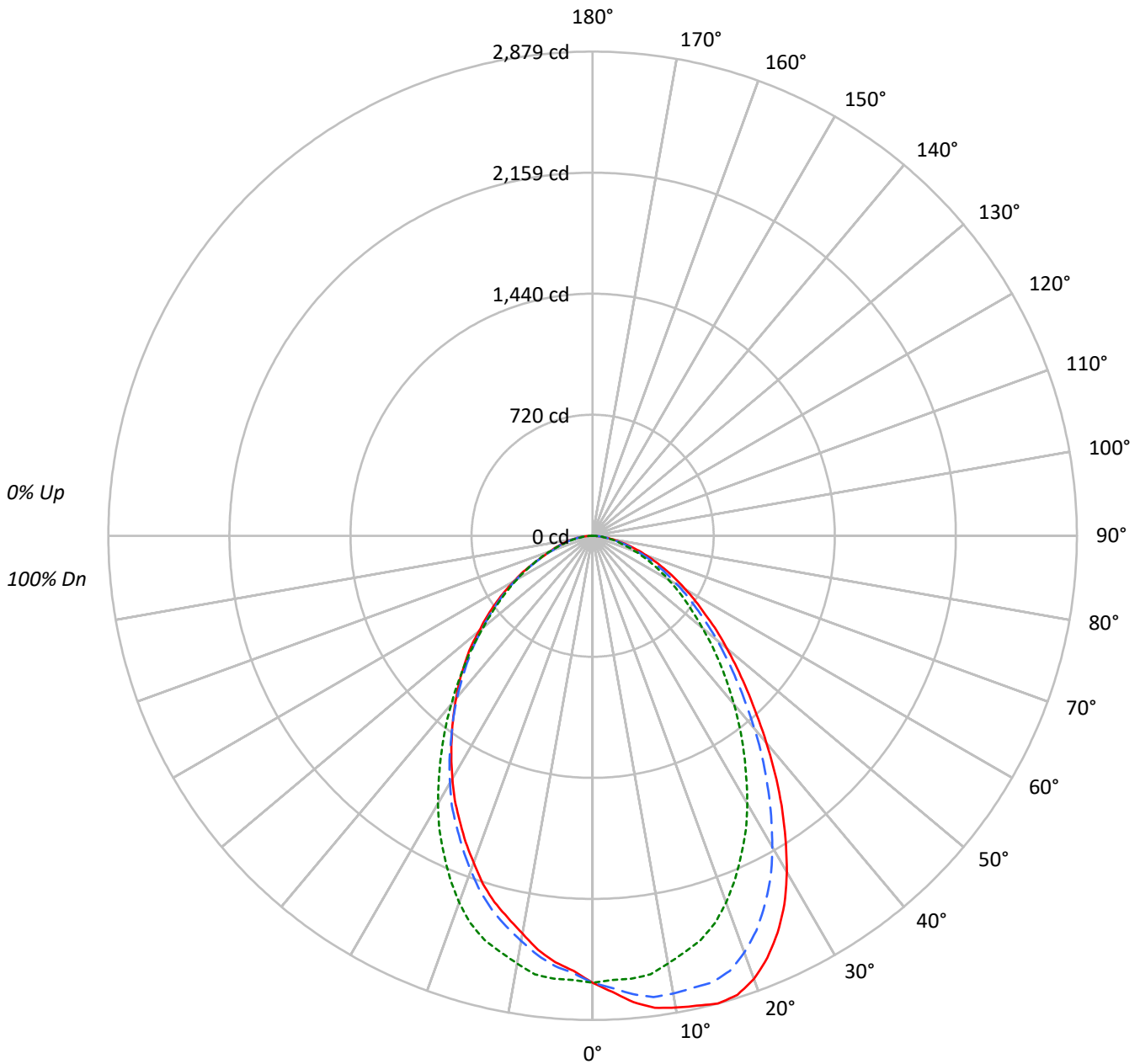
Input Watts (W): 55  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58					58			
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51					51			
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46					46			
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41					41			
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37					37			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34					34			
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31					31			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	327803	327803	327803
5°	344681	327359	315114
10°	356795	323467	300809
15°	367677	317582	287956
20°	368097	304501	271370
25°	354260	284619	254433
30°	328950	261909	237597
35°	294860	235789	219858
40°	258721	210384	203235
45°	226140	186264	187450
50°	199663	163012	168903
55°	176080	144533	151866
60°	157389	127909	132991
65°	139393	112541	112541
70°	121788	95966	95966
75°	104083	81303	91073
80°	82397	72666	82397
85°	53213	62695	77272



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	251.8	4.9
10°-20°	709.1	13.8
20°-30°	993.4	19.3
30°-40°	1023.5	19.9
40°-50°	871.3	16.9
50°-60°	645.6	12.5
60°-70°	405.2	7.9
70°-80°	201.3	3.9
80°-90°	52.8	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°	1954.3	37.9
0°-40°	2977.7	57.8
0°-60°	4494.7	87.2
0°-90°	5153.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5153.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2658	2658	2658	2658	2658	
5°	2784	2736	2644	2569	2545	268
15°	2879	2750	2487	2306	2255	810
25°	2603	2422	2091	1910	1870	1190
35°	1958	1812	1566	1464	1460	1221
45°	1296	1208	1068	1047	1075	1006
55°	819	754	672	686	706	740
65°	478	430	386	379	386	476
75°	218	194	171	184	191	233
85°	38	38	44	51	55	48
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°	2657.6	2657.6	2657.6	2657.6	2657.6	2657.6	2657.6	2657.6	2657.6
2.5°	2715.5	2705.4	2691.7	2667.8	2643.9	2623.5	2603.0	2592.8	2589.3
5°	2783.8	2763.4	2736.1	2691.7	2643.9	2603.0	2568.9	2551.9	2545.0
7.5°	2831.6	2811.1	2766.8	2698.5	2630.3	2568.9	2514.3	2490.4	2483.6
10°	2848.7	2824.7	2763.4	2671.2	2582.6	2507.4	2446.1	2415.4	2401.7
12.5°	2862.3	2831.6	2753.1	2643.9	2534.7	2442.7	2377.8	2336.9	2326.6
15°	2879.3	2845.3	2749.7	2616.6	2487.0	2377.8	2306.2	2268.6	2255.0
17.5°	2862.3	2824.7	2712.2	2562.0	2415.4	2295.9	2217.5	2183.4	2169.7
20°	2804.3	2763.4	2637.2	2476.7	2319.8	2197.0	2118.6	2084.4	2067.4
22.5°	2715.5	2671.2	2541.6	2371.1	2210.7	2091.3	2016.2	1982.1	1971.9
25°	2603.0	2558.6	2422.2	2248.2	2091.3	1975.2	1910.5	1879.7	1869.5
27.5°	2470.0	2425.7	2292.5	2122.0	1971.9	1862.7	1811.6	1780.8	1774.0
30°	2309.6	2265.2	2135.6	1978.7	1838.9	1736.4	1695.5	1671.7	1668.2
32.5°	2132.3	2094.7	1975.2	1832.0	1699.0	1613.6	1582.9	1565.9	1562.5
35°	1958.2	1917.3	1811.6	1681.8	1565.9	1490.9	1463.6	1460.1	1460.1
37.5°	1780.8	1739.8	1654.6	1535.2	1436.3	1368.0	1357.8	1361.2	1361.2
40°	1606.8	1569.3	1494.3	1395.3	1306.6	1255.5	1252.1	1258.8	1262.2
42.5°	1443.1	1412.4	1344.1	1258.8	1183.8	1142.9	1146.3	1159.9	1170.2
45°	1296.4	1269.1	1207.6	1132.6	1067.8	1037.1	1047.3	1064.4	1074.6
47.5°	1163.3	1139.5	1081.4	1013.2	958.7	938.2	951.8	972.3	986.0
50°	1040.5	1020.1	965.5	893.8	849.5	835.8	852.9	873.3	880.2
52.5°	931.4	910.9	852.9	791.5	757.3	750.6	767.6	784.6	794.9
55°	818.8	801.7	754.0	699.4	672.1	668.7	685.7	699.4	706.2
57.5°	726.7	709.6	665.3	617.5	593.6	590.2	607.2	617.5	620.9
60°	638.0	620.9	579.9	535.6	518.5	518.5	528.8	535.6	539.1
62.5°	556.1	539.1	501.5	463.9	450.3	450.3	450.3	453.7	463.9
65°	477.6	463.9	429.9	395.7	385.6	378.7	378.7	378.7	385.6
67.5°	406.0	392.3	365.0	334.3	324.1	313.8	310.4	317.3	317.3
70°	337.7	327.5	300.2	276.4	266.1	255.8	252.4	266.1	266.1
72.5°	276.4	266.1	249.1	225.1	214.9	211.5	218.4	225.1	228.5
75°	218.4	208.1	194.5	180.8	170.6	173.9	184.2	187.6	191.1
77.5°	163.8	160.3	146.6	136.5	136.5	139.9	146.6	153.5	156.9
80°	116.0	112.6	105.8	98.9	102.3	109.2	112.6	119.5	116.0
82.5°	71.6	71.6	68.2	68.2	71.6	78.5	81.9	85.3	88.7
85°	37.6	37.6	37.6	40.9	44.3	47.7	51.2	54.6	54.6
87.5°	10.3	13.6	13.6	17.0	20.4	20.4	23.9	23.9	23.9
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)