

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: P581313

Luminaire Tested: **HC460D010-HM44560835-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581313
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC460D010-HM44560835-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5260.4 lumens
Efficiency: N/A
Efficacy: 95.6 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

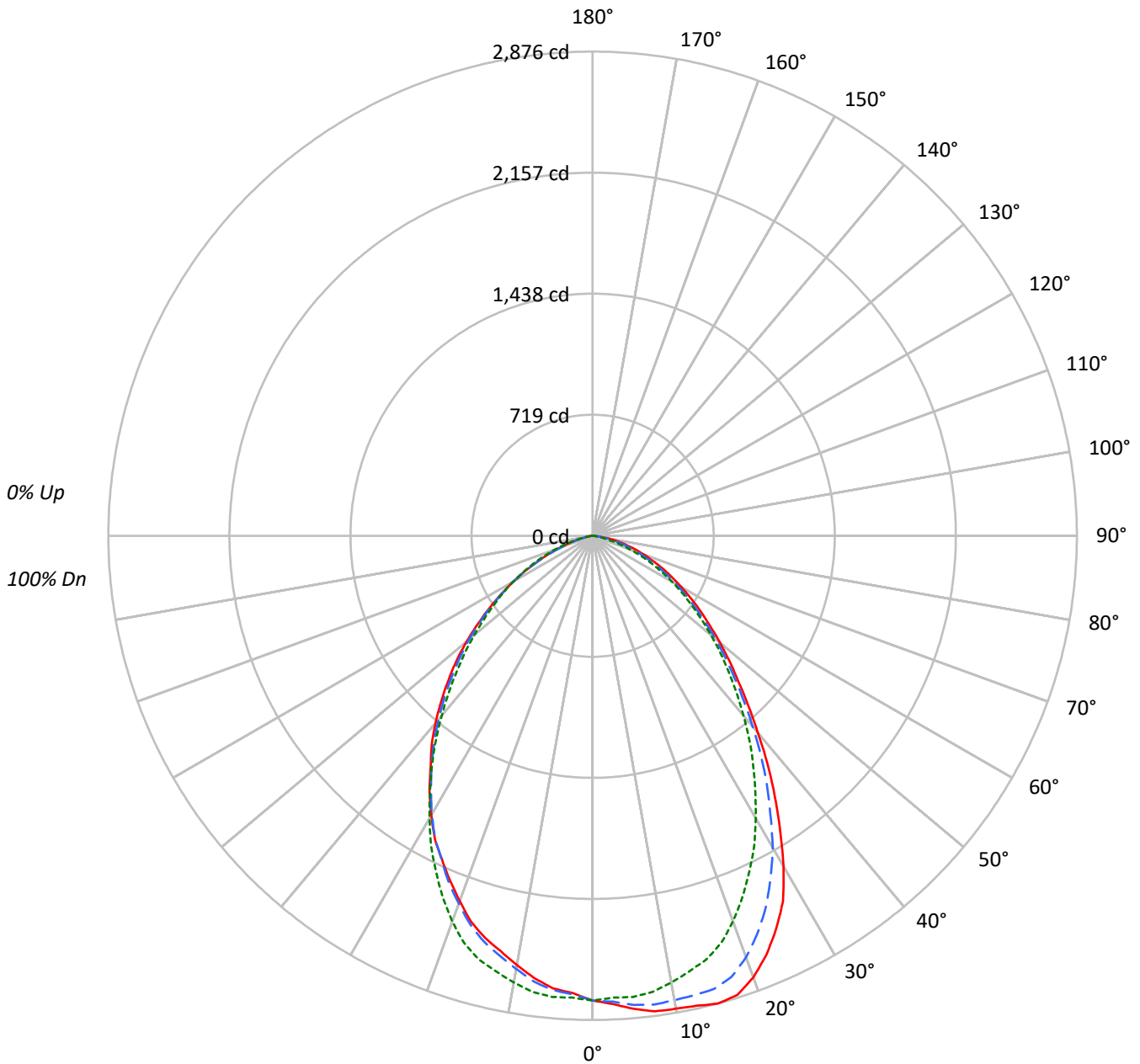
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	100	100
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88	88	88	88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77	77	77	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67	67	67	67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59	59	59	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52	52	52	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47	47	47	47
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42	42	42	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38	38	38	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35	35	35	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32	32	32	32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	340422	340422	340422
5°	349361	340447	334082
10°	357271	337519	324206
15°	367320	332740	315654
20°	366325	319963	302860
25°	350885	299563	288362
30°	322783	275896	272962
35°	283943	250380	252443
40°	245646	224135	233522
45°	213511	199137	211104
50°	189493	175658	187497
55°	168102	154081	160726
60°	149717	133633	133633
65°	133059	111082	104077
70°	115008	84101	74183
75°	96410	55521	45751
80°	73092	26779	24364
85°	38777	9765	9765



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.4	5.0
10°-20°	741.0	14.1
20°-30°	1045.0	19.9
30°-40°	1079.5	20.5
40°-50°	915.1	17.4
50°-60°	665.8	12.7
60°-70°	389.1	7.4
70°-80°	144.6	2.7
80°-90°	18.9	0.4
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°	2047.4	38.9
0°-40°	3126.9	59.4
0°-60°	4707.9	89.5
0°-90°	5260.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5260.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2760	2760	2760	2760	2760	
5°	2822	2798	2750	2708	2698	270
15°	2876	2787	2606	2496	2472	809
25°	2578	2434	2201	2122	2119	1179
35°	1886	1803	1663	1666	1676	1178
45°	1224	1190	1142	1183	1210	953
55°	782	744	716	740	747	703
65°	456	418	381	357	357	453
75°	202	168	116	93	96	217
85°	27	17	7	7	7	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°	2759.9	2759.9	2759.9	2759.9	2759.9	2759.9	2759.9	2759.9	2759.9
2.5°	2783.9	2777.0	2770.1	2759.9	2746.2	2735.9	2725.6	2718.8	2718.8
5°	2821.6	2811.3	2797.7	2773.6	2749.6	2729.1	2708.4	2698.2	2698.2
7.5°	2849.0	2835.3	2807.9	2773.6	2732.5	2701.7	2670.8	2657.0	2650.2
10°	2852.5	2838.7	2801.0	2749.6	2694.8	2646.7	2612.4	2591.9	2588.5
12.5°	2859.4	2842.2	2794.2	2722.2	2650.2	2591.9	2554.2	2533.6	2526.7
15°	2876.5	2852.5	2787.3	2694.8	2605.7	2537.1	2495.9	2478.8	2471.9
17.5°	2859.4	2825.1	2746.2	2636.5	2537.1	2461.6	2420.5	2403.3	2403.3
20°	2790.8	2756.5	2663.9	2543.9	2437.6	2365.6	2324.5	2314.2	2307.3
22.5°	2694.8	2657.0	2557.6	2430.7	2324.5	2259.4	2232.0	2218.2	2214.8
25°	2578.2	2540.5	2434.2	2303.9	2201.1	2146.2	2122.2	2122.2	2118.8
27.5°	2447.9	2399.9	2290.2	2177.0	2077.7	2036.5	2026.2	2026.2	2029.6
30°	2266.3	2232.0	2139.4	2029.6	1937.1	1909.7	1909.7	1916.5	1916.5
32.5°	2070.8	2046.8	1964.5	1868.5	1796.6	1779.4	1786.2	1799.9	1803.3
35°	1885.7	1858.3	1803.3	1717.6	1662.8	1655.9	1666.3	1676.5	1676.5
37.5°	1704.0	1676.5	1638.8	1570.2	1529.1	1532.5	1546.3	1559.9	1570.2
40°	1525.6	1505.1	1477.7	1422.9	1392.0	1405.7	1422.9	1436.5	1450.3
42.5°	1367.9	1347.4	1326.9	1285.7	1265.1	1282.2	1302.8	1316.5	1330.3
45°	1224.0	1210.2	1189.7	1155.4	1141.6	1158.8	1182.8	1196.6	1210.2
47.5°	1100.6	1093.7	1066.3	1035.4	1028.5	1045.7	1066.3	1083.4	1093.7
50°	987.5	977.1	953.2	922.3	915.4	942.8	956.5	966.8	977.1
52.5°	877.7	867.4	840.0	812.5	812.5	833.1	843.4	846.8	857.2
55°	781.7	771.4	744.0	723.4	716.5	733.7	740.5	740.5	747.4
57.5°	692.6	682.2	654.8	630.9	627.4	637.7	637.7	637.7	641.2
60°	606.9	596.6	569.1	548.5	541.7	545.2	541.7	538.3	541.7
62.5°	528.0	517.8	490.2	466.3	459.4	459.4	449.2	445.7	449.2
65°	455.9	438.8	418.3	394.2	380.6	370.3	356.6	356.6	356.6
67.5°	384.0	370.3	346.3	322.3	305.1	288.0	267.4	274.3	277.7
70°	318.9	308.5	281.1	257.2	233.2	212.5	195.4	202.3	205.7
72.5°	260.6	246.8	222.9	195.4	174.8	147.4	137.2	144.0	144.0
75°	202.3	188.6	168.0	140.5	116.5	92.6	92.6	96.0	96.0
77.5°	150.8	137.2	116.5	92.6	72.0	54.8	58.3	58.3	58.3
80°	102.9	92.6	75.5	54.8	37.7	30.9	30.9	30.9	34.3
82.5°	58.3	51.4	41.2	27.4	17.1	17.1	17.1	17.1	17.1
85°	27.4	20.5	17.1	10.3	6.9	6.9	6.9	6.9	6.9
87.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
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)