

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: P581151

Luminaire Tested: **HC455D010-HM44560830-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581151
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: HC455D010-HM44560830-41RWWH
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5029.2 lumens
Efficiency: N/A
Efficacy: 96.7 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

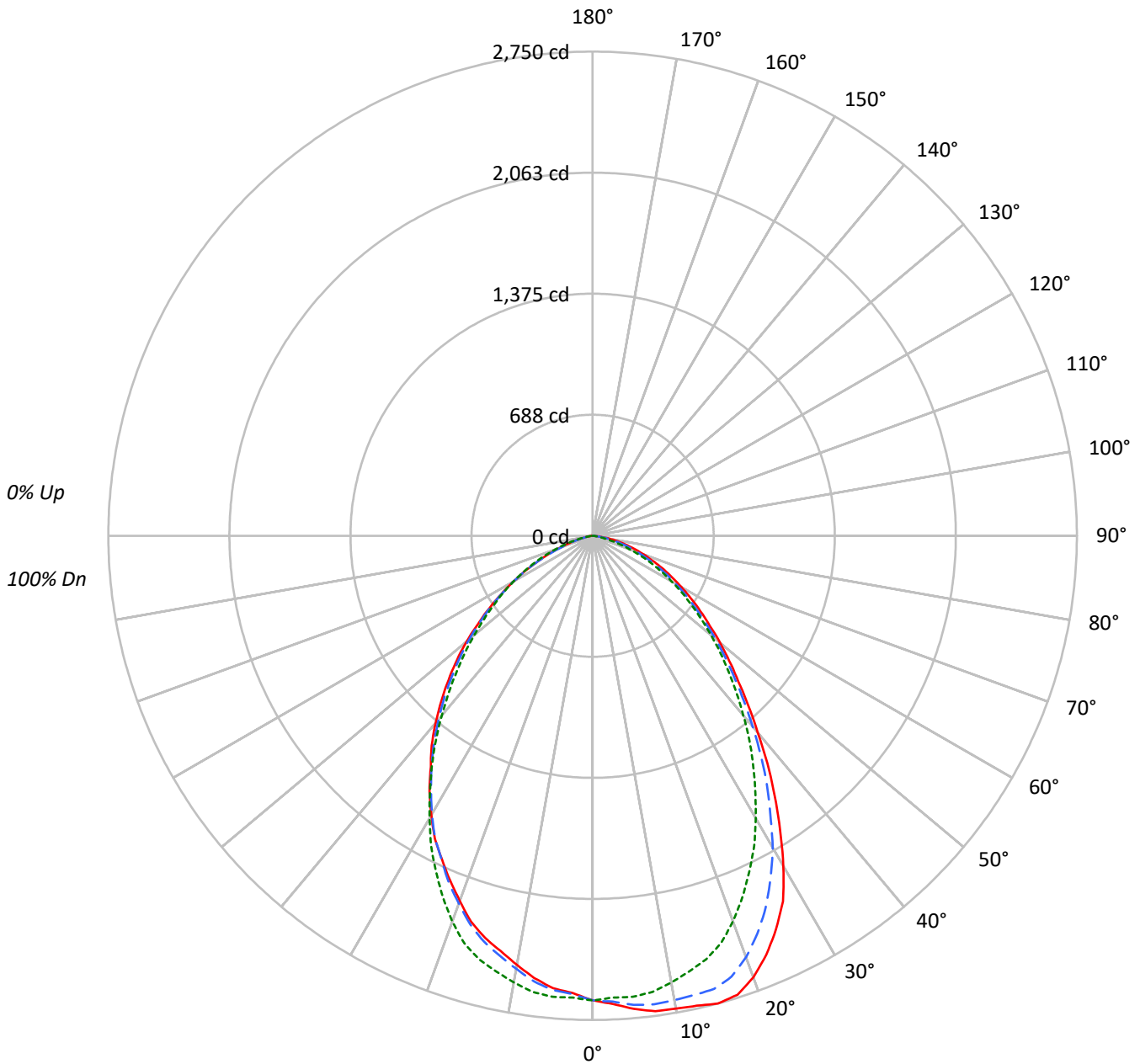
Input Watts (W): 52
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77				77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67				67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59				59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47				47
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35				35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	325460	325460	325460
5°	334008	325490	319398
10°	341565	322690	309965
15°	351179	318105	301786
20°	350232	305905	289550
25°	335465	286389	275691
30°	308583	263775	260969
35°	271461	239373	241345
40°	234858	214280	223233
45°	204126	190398	201841
50°	181146	167924	179265
55°	160704	147307	153672
60°	143130	127737	127737
65°	127222	106179	99495
70°	109959	80386	70902
75°	92169	53138	43749
80°	69824	25571	23227
85°	37079	9199	9199



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.9	5.0
10°-20°	708.4	14.1
20°-30°	999.1	19.9
30°-40°	1032.1	20.5
40°-50°	874.9	17.4
50°-60°	636.6	12.7
60°-70°	372.0	7.4
70°-80°	138.2	2.7
80°-90°	18.1	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°	1957.4	38.9
0°-40°	2989.5	59.4
0°-60°	4501.0	89.5
0°-90°	5029.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5029.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2639	2639	2639	2639	2639	
5°	2698	2675	2629	2589	2580	258
15°	2750	2665	2491	2386	2363	773
25°	2465	2327	2104	2029	2026	1127
35°	1803	1724	1590	1593	1603	1126
45°	1170	1137	1092	1131	1157	911
55°	747	711	685	708	715	672
65°	436	400	364	341	341	433
75°	193	161	112	88	92	208
85°	26	16	6	6	6	37
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°	2638.6	2638.6	2638.6	2638.6	2638.6	2638.6	2638.6	2638.6	2638.6
2.5°	2661.5	2655.0	2648.5	2638.6	2625.5	2615.6	2605.8	2599.3	2599.3
5°	2697.6	2687.7	2674.7	2651.7	2628.8	2609.1	2589.4	2579.6	2579.6
7.5°	2723.8	2710.7	2684.5	2651.7	2612.4	2582.9	2553.4	2540.2	2533.7
10°	2727.1	2714.1	2678.0	2628.8	2576.4	2530.5	2497.7	2478.0	2474.8
12.5°	2733.6	2717.3	2671.4	2602.6	2533.7	2478.0	2441.9	2422.2	2415.7
15°	2750.1	2727.1	2664.9	2576.4	2491.1	2425.6	2386.2	2369.8	2363.3
17.5°	2733.6	2700.9	2625.5	2520.7	2425.6	2353.5	2314.1	2297.7	2297.7
20°	2668.2	2635.3	2546.9	2432.1	2330.5	2261.7	2222.3	2212.5	2205.9
22.5°	2576.4	2540.2	2445.2	2323.9	2222.3	2160.1	2133.8	2120.7	2117.5
25°	2464.9	2428.9	2327.3	2202.6	2104.3	2051.9	2028.9	2028.9	2025.7
27.5°	2340.3	2294.4	2189.6	2081.4	1986.3	1947.0	1937.1	1937.1	1940.4
30°	2166.6	2133.8	2045.4	1940.4	1852.0	1825.8	1825.8	1832.3	1832.3
32.5°	1979.8	1956.8	1878.2	1786.4	1717.5	1701.2	1707.8	1720.8	1724.1
35°	1802.8	1776.6	1724.1	1642.2	1589.7	1583.2	1593.0	1602.8	1602.8
37.5°	1629.1	1602.8	1566.8	1501.2	1461.9	1465.2	1478.2	1491.4	1501.2
40°	1458.6	1439.0	1412.8	1360.2	1330.8	1343.9	1360.2	1373.4	1386.4
42.5°	1307.8	1288.1	1268.6	1229.2	1209.5	1225.9	1245.6	1258.6	1271.8
45°	1170.2	1157.1	1137.4	1104.6	1091.5	1107.9	1130.9	1143.9	1157.1
47.5°	1052.2	1045.6	1019.4	989.9	983.4	999.7	1019.4	1035.8	1045.6
50°	944.0	934.2	911.2	881.8	875.1	901.4	914.5	924.3	934.2
52.5°	839.1	829.2	803.0	776.8	776.8	796.5	806.3	809.7	819.4
55°	747.3	737.6	711.2	691.6	685.0	701.4	708.0	708.0	714.6
57.5°	662.1	652.3	626.1	603.1	599.8	609.6	609.6	609.6	612.9
60°	580.2	570.4	544.2	524.5	517.8	521.2	517.8	514.6	517.8
62.5°	504.8	495.0	468.7	445.7	439.2	439.2	429.4	426.2	429.4
65°	435.9	419.5	399.9	377.0	363.8	354.0	340.9	340.9	340.9
67.5°	367.1	354.0	331.1	308.1	291.7	275.3	255.7	262.2	265.5
70°	304.9	295.0	268.8	245.8	222.9	203.2	186.9	193.4	196.6
72.5°	249.1	236.0	213.1	186.9	167.2	141.0	131.1	137.7	137.7
75°	193.4	180.2	160.6	134.4	111.5	88.5	88.5	91.8	91.8
77.5°	144.2	131.1	111.5	88.5	68.9	52.4	55.7	55.7	55.7
80°	98.3	88.5	72.1	52.4	36.0	29.5	29.5	29.5	32.7
82.5°	55.7	49.2	39.4	26.2	16.4	16.4	16.4	16.4	16.4
85°	26.2	19.7	16.4	9.8	6.5	6.5	6.5	6.5	6.5
87.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
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)