

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: P581169

Luminaire Tested: **HC455D010-HM44560835-41RWWH**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581169
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-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: 5056.2 lumens
Efficiency: N/A
Efficacy: 97.2 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

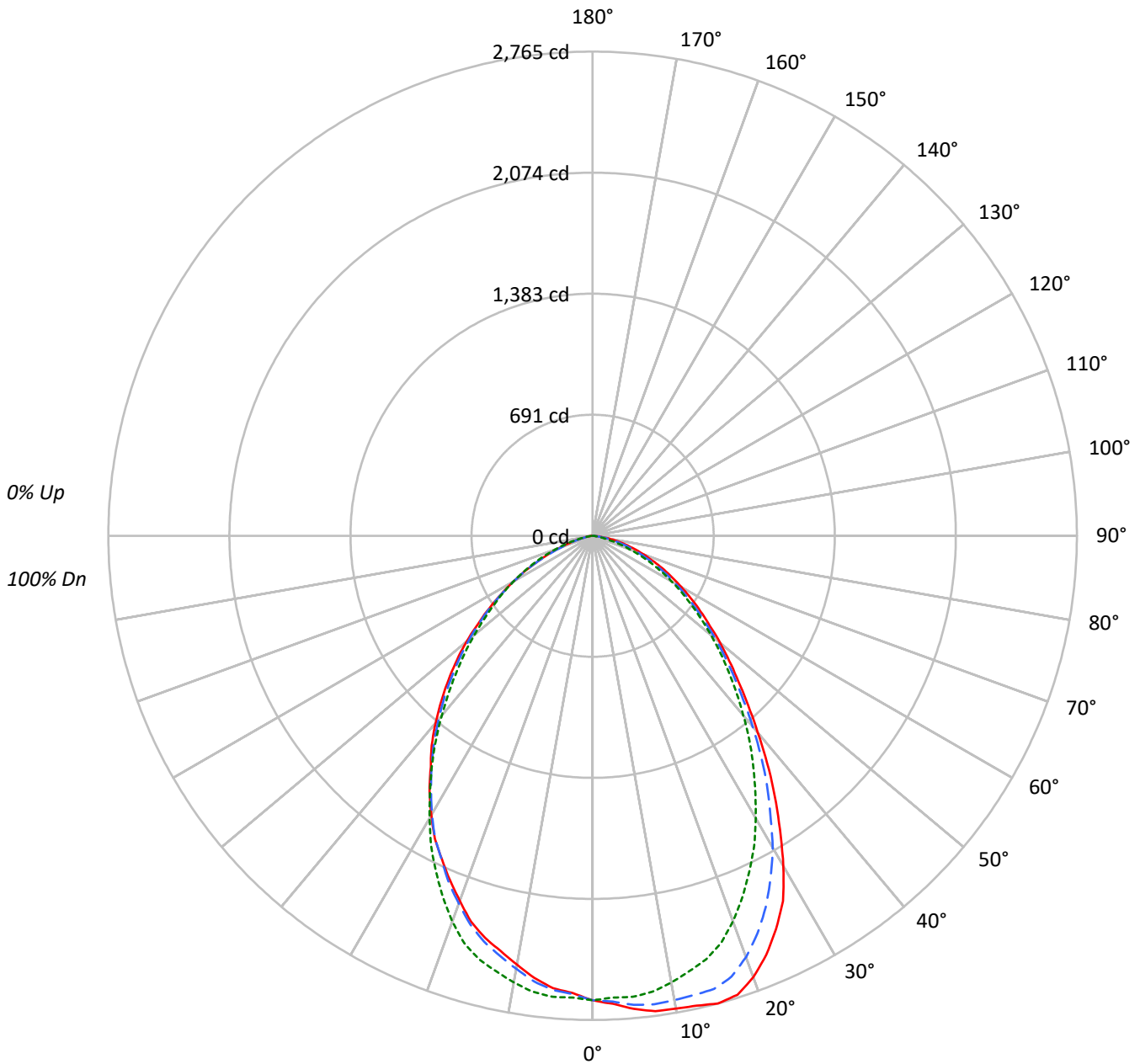
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
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°	327211	327211	327211
5°	335791	327223	321119
10°	343394	324406	311606
15°	353056	319817	303395
20°	352109	307546	291099
25°	337275	287926	277161
30°	310235	265185	262365
35°	272921	240668	242640
40°	236114	215440	224441
45°	205208	191410	202905
50°	182105	168846	180225
55°	161586	148103	154489
60°	143895	128427	128427
65°	127923	106733	100021
70°	110500	80819	71334
75°	92645	53376	43940
80°	70251	25714	23441
85°	37221	9341	9341



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.2	5.0
10°-20°	712.2	14.1
20°-30°	1004.4	19.9
30°-40°	1037.6	20.5
40°-50°	879.6	17.4
50°-60°	640.0	12.7
60°-70°	374.0	7.4
70°-80°	139.0	2.7
80°-90°	18.2	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°	1967.9	38.9
0°-40°	3005.5	59.4
0°-60°	4525.1	89.5
0°-90°	5056.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5056.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2653	2653	2653	2653	2653	
5°	2712	2689	2643	2603	2594	260
15°	2765	2679	2504	2399	2376	777
25°	2478	2340	2116	2040	2036	1133
35°	1812	1733	1598	1602	1611	1132
45°	1176	1143	1097	1137	1163	915
55°	751	715	689	712	718	676
65°	438	402	366	343	343	435
75°	194	161	112	89	92	209
85°	26	16	7	7	7	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°	2652.8	2652.8	2652.8	2652.8	2652.8	2652.8	2652.8	2652.8	2652.8
2.5°	2675.8	2669.2	2662.6	2652.8	2639.6	2629.7	2619.8	2613.3	2613.3
5°	2712.0	2702.1	2689.0	2665.9	2642.8	2623.0	2603.4	2593.5	2593.5
7.5°	2738.5	2725.2	2698.9	2665.9	2626.4	2596.7	2567.0	2553.9	2547.3
10°	2741.7	2728.6	2692.4	2642.8	2590.1	2544.0	2511.0	2491.3	2487.9
12.5°	2748.3	2731.8	2685.7	2616.5	2547.3	2491.3	2455.0	2435.3	2428.6
15°	2764.8	2741.7	2679.1	2590.1	2504.5	2438.5	2399.1	2382.5	2375.9
17.5°	2748.3	2715.4	2639.6	2534.1	2438.5	2366.1	2326.5	2310.1	2310.1
20°	2682.5	2649.5	2560.5	2445.2	2343.0	2273.7	2234.2	2224.4	2217.7
22.5°	2590.1	2553.9	2458.4	2336.4	2234.2	2171.6	2145.3	2132.1	2128.8
25°	2478.2	2441.8	2339.7	2214.5	2115.6	2062.9	2039.8	2039.8	2036.5
27.5°	2352.8	2306.7	2201.3	2092.5	1997.0	1957.4	1947.6	1947.6	1950.9
30°	2178.2	2145.3	2056.3	1950.9	1861.9	1835.6	1835.6	1842.1	1842.1
32.5°	1990.4	1967.3	1888.2	1796.0	1726.8	1710.3	1716.9	1730.0	1733.4
35°	1812.5	1786.0	1733.4	1650.9	1598.3	1591.6	1601.6	1611.4	1611.4
37.5°	1637.8	1611.4	1575.2	1509.3	1469.7	1473.0	1486.2	1499.4	1509.3
40°	1466.4	1446.6	1420.3	1367.6	1338.0	1351.1	1367.6	1380.7	1393.9
42.5°	1314.8	1295.1	1275.3	1235.7	1216.0	1232.4	1252.2	1265.4	1278.6
45°	1176.4	1163.2	1143.4	1110.5	1097.3	1113.9	1136.9	1150.1	1163.2
47.5°	1057.8	1051.2	1024.9	995.2	988.6	1005.1	1024.9	1041.3	1051.2
50°	949.0	939.2	916.1	886.5	879.9	906.2	919.4	929.2	939.2
52.5°	843.6	833.7	807.4	781.0	781.0	800.8	810.7	813.9	823.8
55°	751.4	741.5	715.1	695.4	688.7	705.2	711.8	711.8	718.4
57.5°	665.7	655.8	629.4	606.4	603.0	612.9	612.9	612.9	616.3
60°	583.3	573.4	547.0	527.3	520.6	523.9	520.6	517.4	520.6
62.5°	507.5	497.6	471.3	448.2	441.6	441.6	431.7	428.4	431.7
65°	438.3	421.8	402.1	379.0	365.7	356.0	342.7	342.7	342.7
67.5°	369.1	356.0	332.8	309.7	293.3	276.9	257.1	263.6	267.0
70°	306.4	296.6	270.2	247.2	224.1	204.3	187.9	194.4	197.8
72.5°	250.4	237.3	214.2	187.9	168.1	141.8	131.8	138.4	138.4
75°	194.4	181.2	161.4	135.1	112.0	89.0	89.0	92.2	92.2
77.5°	145.0	131.8	112.0	89.0	69.2	52.8	56.0	56.0	56.0
80°	98.9	89.0	72.4	52.8	36.2	29.7	29.7	29.7	33.0
82.5°	56.0	49.4	39.6	26.3	16.4	16.4	16.4	16.4	16.4
85°	26.3	19.8	16.4	9.9	6.6	6.6	6.6	6.6	6.6
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)