

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: P582621

Luminaire Tested: **HC645D010-HM64560840-61RWWH**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582621
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-15)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC645D010-HM64560840-61RWWH
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5360.1 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.19
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

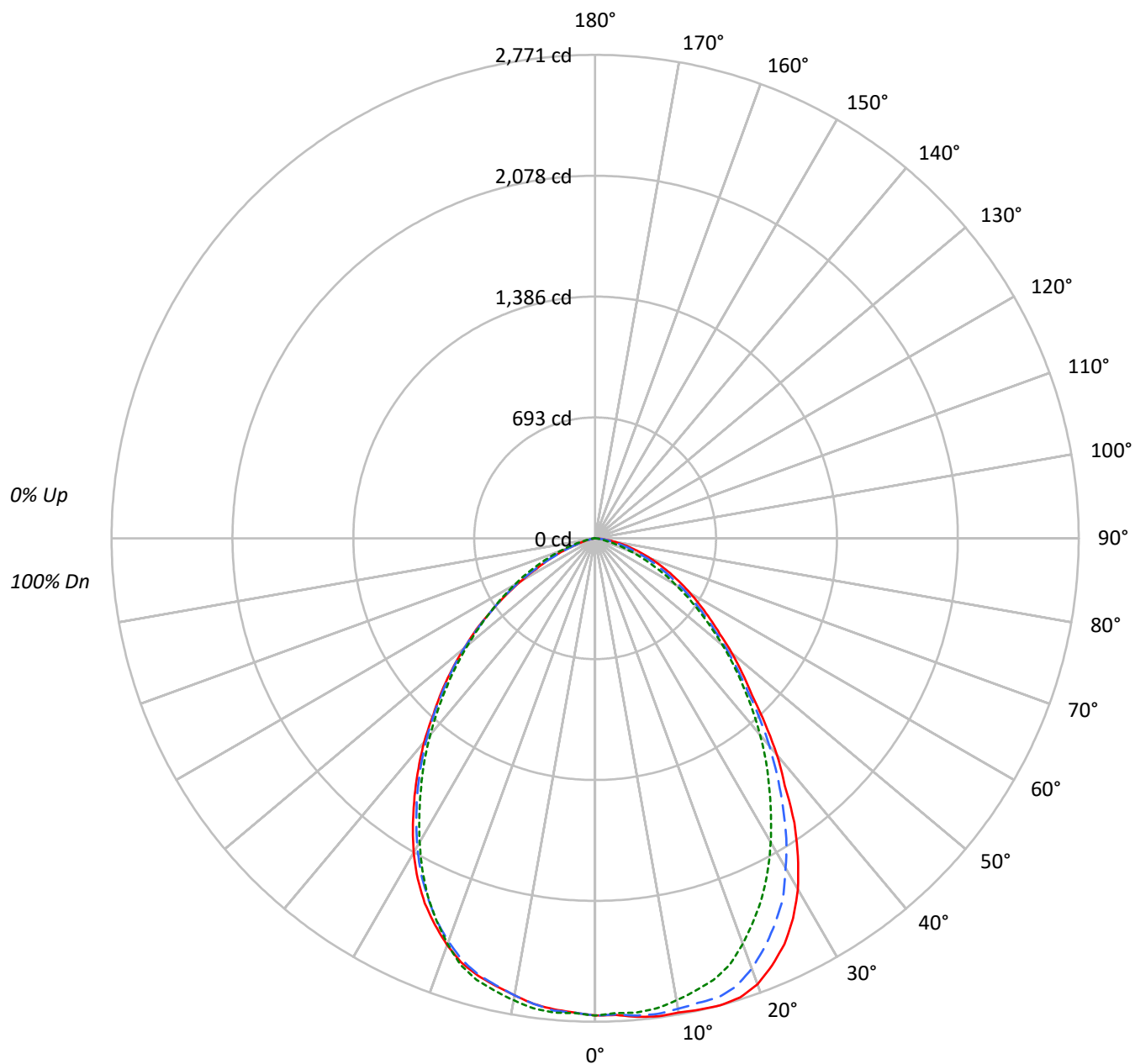
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77		
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67		
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59		
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53		
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47		
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42		
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38		
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35		
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	149955	149955	149955
5°	151518	150137	149147
10°	153666	149680	148077
15°	157282	148735	147311
20°	158745	144312	144732
25°	155271	137052	139653
30°	147054	127311	131628
35°	133164	116359	120689
40°	115967	105190	109040
45°	98398	93110	96452
50°	87144	81328	83477
55°	76748	69551	69216
60°	68788	58570	53844
65°	61381	46970	38603
70°	54016	33900	24139
75°	45560	20503	13662
80°	35074	9060	5651
85°	20316	2264	2264



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.6	4.8
10°-20°	746.3	13.9
20°-30°	1078.8	20.1
30°-40°	1135.1	21.2
40°-50°	954.2	17.8
50°-60°	669.7	12.5
60°-70°	368.4	6.9
70°-80°	130.8	2.4
80°-90°	17.1	0.3
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°	2084.7	38.9
0°-40°	3219.8	60.1
0°-60°	4843.7	90.4
0°-90°	5360.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5360.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2735	2735	2735	2735	2735	
5°	2753	2746	2728	2718	2710	263
15°	2771	2725	2621	2588	2596	782
25°	2567	2438	2266	2269	2309	1174
35°	1990	1875	1739	1775	1803	1233
45°	1269	1233	1201	1230	1244	996
55°	803	760	728	728	724	723
65°	473	423	362	298	298	471
75°	215	172	97	64	64	231
85°	32	18	4	4	4	44
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°	2735.4	2735.4	2735.4	2735.4	2735.4	2735.4	2735.4	2735.4	2735.4
2.5°	2735.4	2735.4	2731.9	2731.9	2724.6	2724.6	2721.1	2721.1	2721.1
5°	2753.4	2753.4	2746.2	2735.4	2728.3	2717.5	2717.5	2714.0	2710.3
7.5°	2764.2	2760.5	2749.7	2735.4	2717.5	2699.7	2692.4	2696.0	2692.4
10°	2760.5	2753.4	2739.1	2710.3	2688.9	2663.8	2660.1	2656.6	2660.1
12.5°	2767.7	2757.0	2728.3	2692.4	2656.6	2627.9	2624.4	2624.4	2627.9
15°	2771.3	2760.5	2724.6	2670.9	2620.7	2592.1	2588.5	2592.1	2595.6
17.5°	2760.5	2746.2	2692.4	2620.7	2563.4	2534.7	2534.7	2541.9	2549.0
20°	2721.1	2699.7	2624.4	2538.3	2473.7	2452.3	2459.4	2473.7	2480.9
22.5°	2649.5	2624.4	2538.3	2441.5	2373.3	2355.4	2373.3	2391.3	2398.4
25°	2567.0	2538.3	2437.8	2337.6	2265.8	2244.3	2269.4	2298.0	2308.8
27.5°	2455.8	2423.5	2330.3	2215.6	2143.9	2133.1	2161.8	2194.1	2201.3
30°	2323.1	2287.4	2183.3	2075.7	2011.2	2007.7	2040.0	2068.6	2079.4
32.5°	2161.8	2129.6	2040.0	1932.4	1875.0	1875.0	1907.3	1932.4	1943.2
35°	1989.8	1953.9	1875.0	1785.4	1738.7	1742.4	1774.6	1792.6	1803.4
37.5°	1785.4	1774.6	1713.6	1638.4	1606.2	1613.3	1638.4	1652.8	1663.5
40°	1620.5	1591.8	1552.3	1491.5	1469.9	1477.0	1502.1	1516.5	1523.7
42.5°	1441.3	1423.3	1391.1	1348.0	1333.7	1344.4	1366.0	1376.6	1373.1
45°	1269.2	1265.5	1233.3	1208.2	1201.0	1215.3	1229.7	1240.4	1244.1
47.5°	1143.7	1129.4	1100.6	1082.7	1075.5	1089.8	1104.3	1111.4	1111.4
50°	1021.8	1007.4	978.8	960.8	953.6	968.0	978.8	985.9	978.8
52.5°	899.9	885.5	860.4	838.9	835.3	842.4	846.1	849.7	856.9
55°	803.0	788.7	760.1	735.0	727.7	731.4	727.7	727.7	724.2
57.5°	709.9	695.5	666.9	638.1	627.4	623.8	613.0	609.5	605.9
60°	627.4	609.5	580.8	548.5	534.2	519.9	501.9	491.1	491.1
62.5°	548.5	530.5	498.3	469.7	448.1	423.1	394.4	380.1	380.1
65°	473.2	458.9	423.1	390.7	362.1	329.8	297.6	290.4	297.6
67.5°	401.5	387.2	351.3	319.1	283.3	243.7	215.1	215.1	222.3
70°	337.0	322.7	290.4	250.9	211.5	172.1	150.6	150.6	150.6
72.5°	276.0	261.7	225.9	190.0	150.6	111.1	100.4	103.9	100.4
75°	215.1	204.3	172.1	132.7	96.8	68.2	64.5	61.0	64.5
77.5°	161.3	150.6	121.9	86.1	53.7	39.4	35.9	35.9	35.9
80°	111.1	100.4	78.8	50.2	28.7	17.9	17.9	17.9	17.9
82.5°	68.2	57.4	43.0	25.1	10.8	10.8	10.8	10.8	10.8
85°	32.3	25.1	17.9	7.2	3.6	3.6	3.6	3.6	3.6
87.5°	7.2	7.2	3.6	3.6	0.0	3.6	3.6	0.0	0.0
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)