

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: P582629

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

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P582629
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC645D010-HM64560840-61WWWB
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5137.8 lumens
Efficiency: N/A
Efficacy: 116.8 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

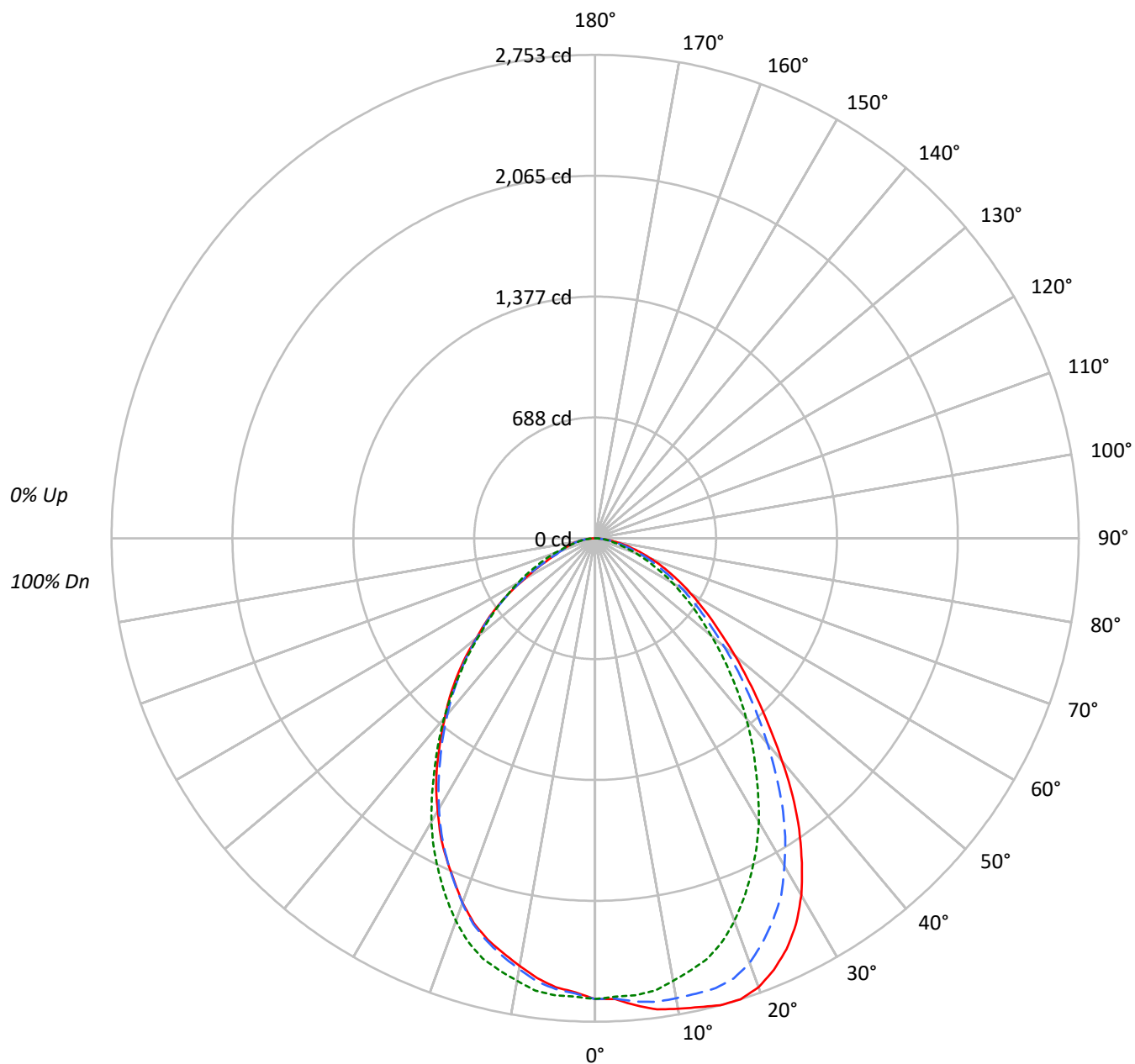
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87		
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76		
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66		
4	87	77	69	63	85	75	68	63	73	67	62	71	65	61	69	64	60	58		
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52		
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46		
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42		
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38		
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34		
10	58	46	38	34	57	45	38	33	44	38	33	43	37	33	43	37	33	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	143821	143821	143821
5°	146934	143776	141217
10°	151428	142449	137662
15°	156221	140557	134252
20°	158698	135281	128794
25°	156088	127253	121398
30°	148599	117974	113435
35°	135513	106495	104815
40°	118493	95672	95157
45°	101972	84195	86141
50°	88645	73362	74889
55°	77417	64399	65078
60°	68766	55807	51081
65°	61368	46957	39057
70°	53999	38484	32746
75°	46301	30352	31136
80°	37315	26045	30559
85°	24782	22581	27047



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.4	4.8
10°-20°	707.1	13.8
20°-30°	1009.5	19.6
30°-40°	1057.4	20.6
40°-50°	890.3	17.3
50°-60°	633.6	12.3
60°-70°	370.9	7.2
70°-80°	175.5	3.4
80°-90°	45.2	0.9
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°	1965.0	38.2
0°-40°	3022.4	58.8
0°-60°	4546.3	88.5
0°-90°	5137.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5137.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2624	2624	2624	2624	2624	
5°	2670	2649	2613	2577	2566	257
15°	2753	2652	2477	2376	2366	777
25°	2580	2398	2104	2004	2007	1181
35°	2025	1856	1591	1538	1566	1258
45°	1315	1218	1086	1090	1111	1021
55°	810	742	674	674	681	730
65°	473	419	362	305	301	472
75°	219	183	143	140	147	235
85°	39	32	36	43	43	51
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°	2623.5	2623.5	2623.5	2623.5	2623.5	2623.5	2623.5	2623.5	2623.5
2.5°	2627.1	2627.1	2623.5	2619.9	2612.7	2601.9	2594.8	2587.6	2587.6
5°	2670.1	2662.9	2648.6	2630.7	2612.7	2591.3	2577.0	2566.2	2566.2
7.5°	2706.0	2691.6	2662.9	2630.7	2598.4	2569.7	2544.7	2530.3	2526.8
10°	2720.3	2702.4	2659.3	2609.2	2559.0	2519.6	2490.9	2473.0	2473.0
12.5°	2734.6	2713.1	2655.8	2584.1	2519.6	2465.8	2437.1	2422.8	2419.2
15°	2752.6	2723.8	2652.2	2562.5	2476.6	2415.7	2376.3	2365.5	2365.5
17.5°	2752.6	2716.7	2627.1	2516.0	2408.5	2340.4	2304.5	2293.8	2297.3
20°	2720.3	2680.9	2573.3	2437.1	2318.9	2247.2	2211.3	2204.2	2207.7
22.5°	2659.3	2612.7	2490.9	2344.0	2215.0	2139.7	2107.4	2107.4	2103.8
25°	2580.5	2530.3	2397.7	2243.6	2103.8	2028.6	2003.5	2007.0	2007.0
27.5°	2476.6	2426.4	2293.8	2128.9	1989.2	1913.9	1895.9	1903.1	1906.7
30°	2347.5	2293.8	2154.0	1992.7	1863.7	1788.5	1777.7	1788.5	1792.0
32.5°	2189.9	2150.5	2014.3	1849.4	1727.5	1663.0	1659.4	1670.1	1684.5
35°	2024.9	1982.0	1856.5	1706.0	1591.3	1537.6	1537.6	1555.5	1566.2
37.5°	1845.8	1802.8	1688.1	1562.7	1465.9	1415.7	1422.8	1440.8	1444.3
40°	1655.8	1623.5	1526.8	1419.3	1336.9	1297.5	1308.1	1326.1	1329.7
42.5°	1476.6	1448.0	1369.1	1272.4	1211.4	1182.7	1197.0	1218.5	1225.8
45°	1315.3	1283.0	1218.5	1136.2	1086.0	1071.7	1089.6	1103.9	1111.1
47.5°	1168.4	1139.7	1086.0	1010.7	974.9	967.7	985.6	992.8	1000.0
50°	1039.4	1010.7	956.9	888.8	860.2	860.2	874.5	881.6	878.1
52.5°	913.9	888.8	838.7	781.3	763.4	763.4	774.2	777.7	784.9
55°	810.0	784.9	741.9	688.1	673.8	666.6	673.8	673.8	680.9
57.5°	713.2	691.7	652.3	602.1	584.2	577.0	573.5	569.8	577.0
60°	627.2	609.3	566.3	523.3	509.0	491.0	476.7	462.4	465.9
62.5°	548.4	530.4	491.0	448.0	433.7	408.6	390.6	372.8	379.9
65°	473.1	455.1	419.3	383.5	362.0	333.4	304.6	293.8	301.1
67.5°	405.0	390.6	354.8	318.9	301.1	268.9	240.1	240.1	243.7
70°	336.9	322.6	293.8	261.6	240.1	211.5	200.7	204.3	204.3
72.5°	276.0	265.2	236.6	207.9	186.4	168.4	168.4	172.1	175.6
75°	218.6	211.5	182.8	157.7	143.3	132.7	139.8	143.3	147.0
77.5°	168.4	157.7	136.2	118.2	107.6	111.1	118.2	121.9	125.4
80°	118.2	114.7	96.8	86.0	82.5	86.0	93.1	96.8	96.8
82.5°	75.3	71.7	60.9	57.4	57.4	60.9	68.2	68.2	68.2
85°	39.4	35.9	32.3	32.3	35.9	39.4	43.0	43.0	43.0
87.5°	14.3	10.8	14.3	14.3	17.9	17.9	17.9	17.9	17.9
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)