

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: P581190

Luminaire Tested: **HC455D010-HM44560840-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581190
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC455D010-HM44560840-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" 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: 5677.6 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

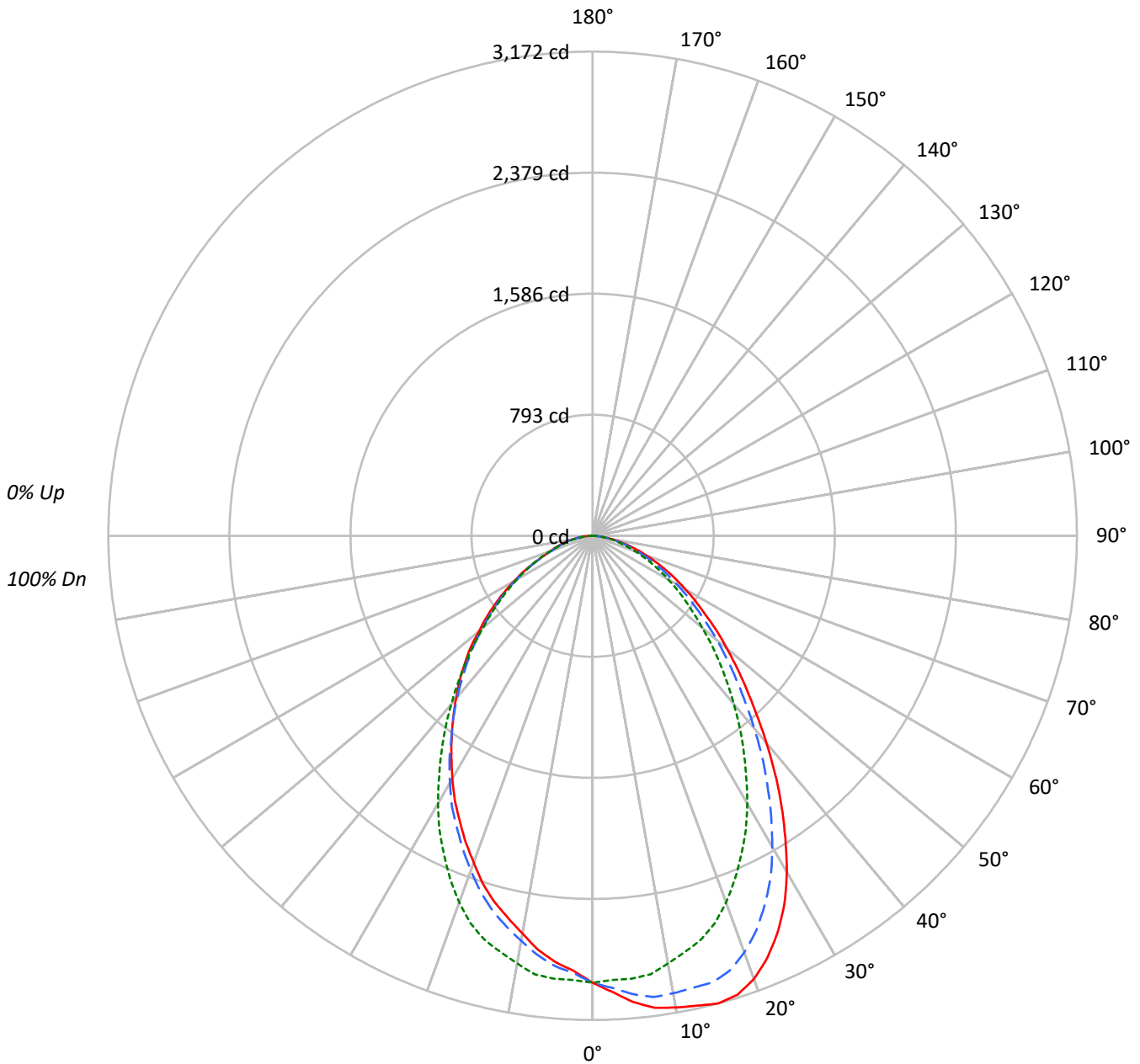
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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																			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58																			
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51																			
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46																			
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41																			
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	361107	361107	361107
5°	379697	360616	347133
10°	393042	356319	331382
15°	405029	349851	317212
20°	405494	335439	298948
25°	390258	313540	280278
30°	362378	288515	261739
35°	324825	259746	242203
40°	285015	231751	223893
45°	249114	205190	206499
50°	219965	179572	186058
55°	193950	159220	167285
60°	173375	140935	146485
65°	153577	123953	123953
70°	134158	105739	105739
75°	114615	89548	100318
80°	90779	80053	90779
85°	58449	69063	85055



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.4	4.9
10°-20°	781.1	13.8
20°-30°	1094.3	19.3
30°-40°	1127.4	19.9
40°-50°	959.9	16.9
50°-60°	711.2	12.5
60°-70°	446.3	7.9
70°-80°	221.8	3.9
80°-90°	58.2	1.0
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°	2152.8	37.9
0°-40°	3280.3	57.8
0°-60°	4951.3	87.2
0°-90°	5677.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5677.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2928	2928	2928	2928	2928	
5°	3067	3014	2912	2830	2804	295
15°	3172	3029	2740	2540	2484	892
25°	2868	2668	2304	2104	2059	1311
35°	2157	1996	1725	1612	1608	1345
45°	1428	1330	1176	1154	1184	1108
55°	902	831	740	755	778	815
65°	526	474	425	417	425	525
75°	240	214	188	203	210	257
85°	41	41	49	56	60	53
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°	2927.6	2927.6	2927.6	2927.6	2927.6	2927.6	2927.6	2927.6	2927.6
2.5°	2991.5	2980.2	2965.2	2938.8	2912.5	2890.0	2867.5	2856.2	2852.4
5°	3066.6	3044.1	3014.0	2965.2	2912.5	2867.5	2829.9	2811.0	2803.6
7.5°	3119.3	3096.7	3047.8	2972.7	2897.5	2829.9	2769.8	2743.4	2735.9
10°	3138.1	3111.8	3044.1	2942.7	2844.9	2762.2	2694.6	2660.7	2645.8
12.5°	3153.0	3119.3	3032.8	2912.5	2792.2	2690.9	2619.5	2574.3	2563.1
15°	3171.8	3134.2	3029.1	2882.5	2739.7	2619.5	2540.5	2499.2	2484.1
17.5°	3153.0	3111.8	2987.8	2822.4	2660.7	2529.2	2442.8	2405.2	2390.2
20°	3089.2	3044.1	2905.1	2728.5	2555.5	2420.2	2333.8	2296.2	2277.5
22.5°	2991.5	2942.7	2799.8	2611.9	2435.3	2303.8	2221.1	2183.5	2172.3
25°	2867.5	2818.6	2668.3	2476.6	2303.8	2176.0	2104.5	2070.8	2059.4
27.5°	2720.9	2672.0	2525.5	2337.5	2172.3	2052.0	1995.5	1961.8	1954.2
30°	2544.3	2495.4	2352.6	2179.7	2025.7	1913.0	1867.8	1841.5	1837.7
32.5°	2348.9	2307.5	2176.0	2018.1	1871.6	1777.6	1743.8	1725.0	1721.2
35°	2157.2	2112.1	1995.5	1852.8	1725.0	1642.3	1612.2	1608.5	1608.5
37.5°	1961.8	1916.7	1822.7	1691.2	1582.2	1507.0	1495.7	1499.5	1499.5
40°	1770.1	1728.8	1646.1	1537.1	1439.3	1383.0	1379.2	1386.8	1390.5
42.5°	1589.7	1555.9	1480.7	1386.8	1304.1	1259.0	1262.7	1277.8	1289.0
45°	1428.1	1398.0	1330.4	1247.7	1176.3	1142.4	1153.8	1172.6	1183.8
47.5°	1281.5	1255.3	1191.4	1116.2	1056.0	1033.5	1048.5	1071.1	1086.1
50°	1146.3	1123.6	1063.6	984.6	935.8	920.7	939.5	962.1	969.6
52.5°	1026.0	1003.4	939.5	871.9	834.3	826.8	845.6	864.3	875.7
55°	901.9	883.1	830.6	770.4	740.4	736.6	755.4	770.4	777.9
57.5°	800.4	781.6	732.8	680.2	654.0	650.1	668.9	680.2	684.0
60°	702.8	684.0	638.9	590.1	571.3	571.3	582.5	590.1	593.8
62.5°	612.6	593.8	552.5	511.1	496.1	496.1	496.1	499.8	511.1
65°	526.2	511.1	473.5	435.9	424.7	417.2	417.2	417.2	424.7
67.5°	447.2	432.2	402.1	368.3	357.1	345.7	342.0	349.5	349.5
70°	372.0	360.8	330.8	304.4	293.2	281.8	278.1	293.2	293.2
72.5°	304.4	293.2	274.4	248.1	236.8	233.0	240.5	248.1	251.8
75°	240.5	229.3	214.2	199.2	187.9	191.7	203.0	206.7	210.5
77.5°	180.3	176.6	161.5	150.3	150.3	154.1	161.5	169.1	172.9
80°	127.8	124.0	116.6	109.0	112.7	120.3	124.0	131.5	127.8
82.5°	79.0	79.0	75.1	75.1	79.0	86.4	90.2	93.9	97.8
85°	41.3	41.3	41.3	45.1	48.8	52.6	56.4	60.1	60.1
87.5°	11.2	15.1	15.1	18.8	22.5	22.5	26.3	26.3	26.3
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)