

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: P580486

Luminaire Tested: **HC435D010-HM43040927-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580486
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC435D010-HM43040927-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2278.8 lumens
Efficiency: N/A
Efficacy: 67.6 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

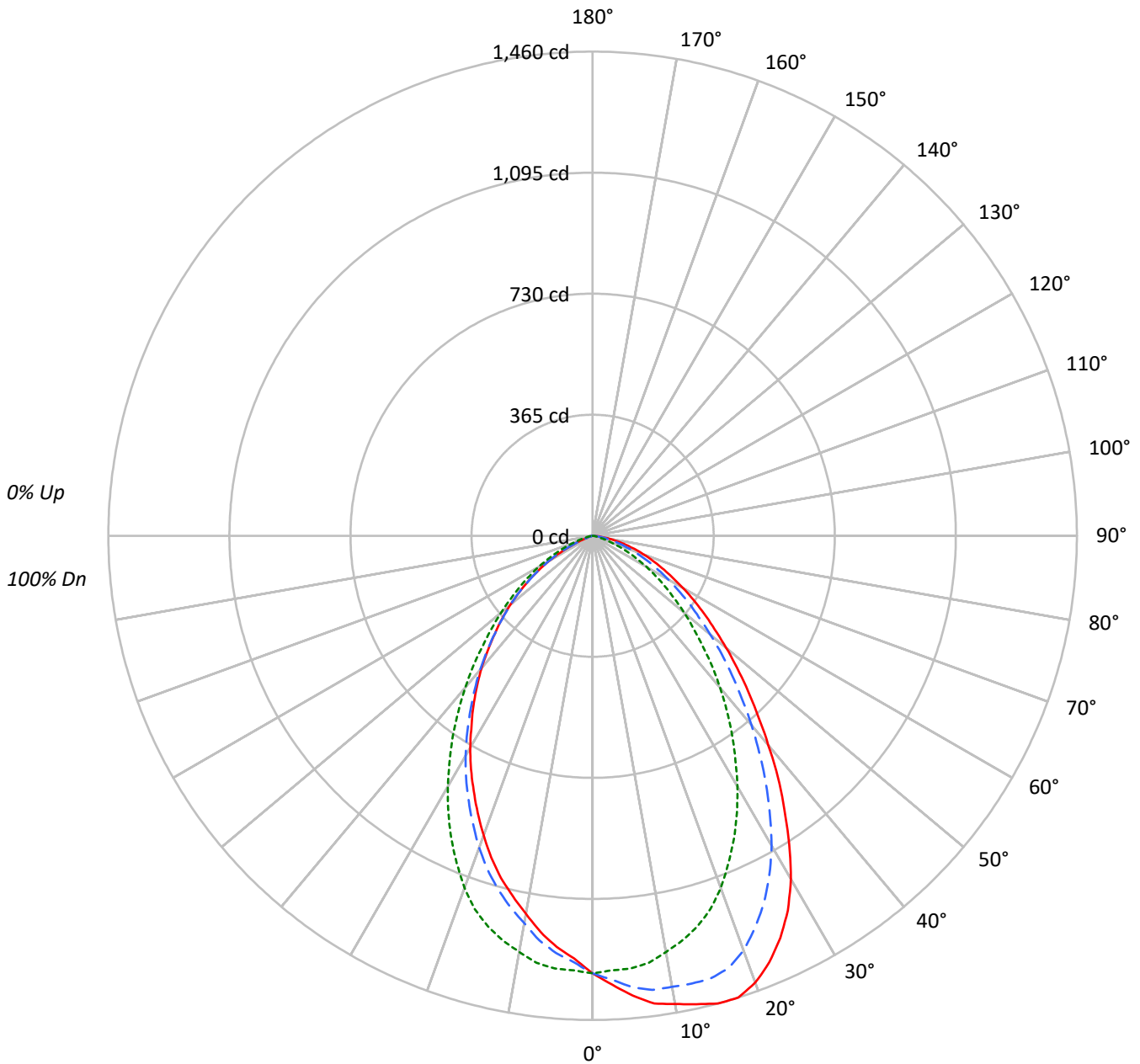
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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			
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89			
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78			
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69			
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61			
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55			
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49			
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44			
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40			
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37			
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	162718	162718	162718
5°	172402	162188	154053
10°	179581	159604	145013
15°	186437	155765	136355
20°	188203	148286	126116
25°	182098	137158	115451
30°	170258	124296	105054
35°	151752	110478	94367
40°	132661	96078	83986
45°	115565	81497	72688
50°	100839	69158	62288
55°	88363	57310	50450
60°	77313	46304	37053
65°	67391	34498	20810
70°	58892	22324	6780
75°	48324	11628	1763
80°	36013	5327	1350
85°	21370	2689	2689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.5	5.5
10°-20°	348.5	15.3
20°-30°	481.8	21.1
30°-40°	484.5	21.3
40°-50°	390.9	17.2
50°-60°	264.3	11.6
60°-70°	134.5	5.9
70°-80°	43.1	1.9
80°-90°	6.6	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°	954.8	41.9
0°-40°	1439.3	63.2
0°-60°	2094.6	91.9
0°-90°	2278.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2278.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1319	1319	1319	1319	1319	
5°	1392	1366	1310	1263	1244	134
15°	1460	1381	1220	1103	1068	411
25°	1338	1222	1008	884	848	612
35°	1008	910	734	642	627	630
45°	662	593	467	417	417	513
55°	411	355	266	233	235	369
65°	231	188	118	77	71	231
75°	101	71	24	6	4	109
85°	15	8	2	2	2	20
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°	1319.2	1319.2	1319.2	1319.2	1319.2	1319.2	1319.2	1319.2	1319.2
2.5°	1354.9	1347.5	1339.9	1326.8	1311.7	1296.8	1287.3	1279.9	1276.1
5°	1392.4	1383.1	1366.2	1338.0	1309.9	1283.6	1262.9	1249.9	1244.2
7.5°	1422.5	1409.4	1381.2	1341.8	1298.7	1257.3	1231.1	1212.3	1204.8
10°	1433.8	1418.7	1381.2	1328.7	1274.3	1223.6	1186.0	1167.3	1157.8
12.5°	1446.9	1430.0	1383.1	1317.4	1249.9	1189.8	1146.6	1122.2	1112.9
15°	1460.0	1437.5	1381.2	1300.5	1219.8	1150.4	1103.4	1079.0	1067.8
17.5°	1460.0	1433.8	1366.2	1272.4	1180.4	1107.3	1054.6	1026.5	1017.1
20°	1433.8	1403.8	1330.5	1227.3	1129.7	1050.9	1000.2	972.1	960.8
22.5°	1392.4	1358.7	1279.9	1172.9	1069.7	992.7	942.0	915.8	904.5
25°	1338.0	1304.3	1221.7	1111.0	1007.8	930.8	883.9	859.5	848.3
27.5°	1274.3	1236.7	1154.1	1043.4	942.0	868.9	825.7	803.2	793.8
30°	1195.4	1159.7	1079.0	970.2	872.7	805.1	765.7	745.0	737.6
32.5°	1103.4	1073.4	994.6	893.2	801.3	739.4	703.7	686.9	679.3
35°	1007.8	979.6	910.2	816.4	733.7	675.6	641.8	630.6	626.7
37.5°	917.6	893.2	825.7	739.4	664.3	613.7	583.6	576.2	572.3
40°	823.9	806.9	745.0	666.2	596.7	551.8	527.4	521.6	521.6
42.5°	739.4	720.6	666.2	594.9	533.0	487.9	471.1	465.4	467.2
45°	662.5	643.7	593.0	527.4	467.2	429.7	416.7	416.7	416.7
47.5°	591.1	574.3	527.4	459.8	410.9	380.9	367.8	367.8	369.7
50°	525.5	514.2	461.6	403.5	360.4	332.1	322.8	320.9	324.6
52.5°	463.5	450.4	403.5	350.9	309.7	287.1	277.7	275.8	277.7
55°	410.9	396.0	354.7	304.0	266.5	243.9	232.7	230.9	234.6
57.5°	360.4	349.0	305.8	260.9	225.2	202.7	193.3	189.5	191.4
60°	313.4	302.1	262.7	219.5	187.7	165.1	152.0	148.3	150.2
62.5°	270.2	260.9	223.3	182.1	150.2	129.5	116.3	107.0	110.7
65°	230.9	221.4	187.7	146.3	118.2	95.7	77.0	69.5	71.3
67.5°	197.0	185.8	153.9	116.3	88.2	63.8	43.2	39.5	39.5
70°	163.3	152.0	123.9	90.0	61.9	33.8	18.8	18.8	18.8
72.5°	131.4	122.0	95.7	67.6	39.5	15.1	7.5	7.5	7.5
75°	101.4	93.9	71.3	46.9	24.4	7.5	5.6	3.7	3.7
77.5°	75.1	67.6	50.7	31.9	15.1	3.7	3.7	3.7	3.7
80°	50.7	45.1	33.8	18.8	7.5	1.9	1.9	1.9	1.9
82.5°	30.0	26.3	18.8	9.3	3.7	1.9	1.9	1.9	1.9
85°	15.1	11.2	7.5	3.7	1.9	1.9	1.9	1.9	1.9
87.5°	3.7	1.9	1.9	1.9	0.0	0.0	0.0	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)