

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: P580380

Luminaire Tested: **HC430D010-HM43040935-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580380
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: HC430D010-HM43040935-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2650.9 lumens
Efficiency: N/A
Efficacy: 94.7 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

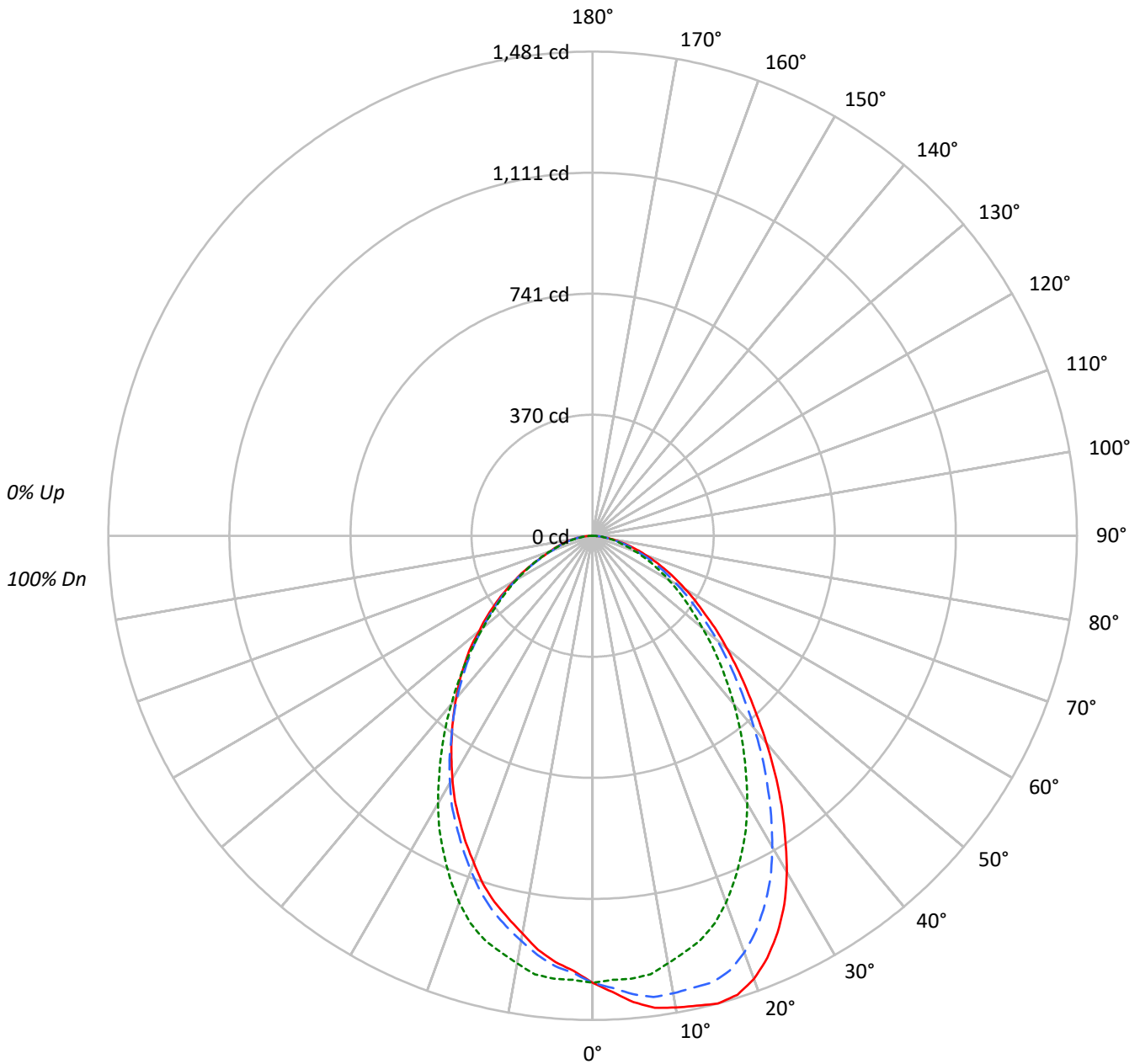
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	168601	168601	168601
5°	177281	168366	162064
10°	183514	166355	154719
15°	189119	163350	148103
20°	189332	156621	139584
25°	182206	146399	130857
30°	169189	134693	122217
35°	151661	121275	113083
40°	133080	108219	104548
45°	116315	95801	96411
50°	102681	83837	86869
55°	90556	74320	78105
60°	80939	65793	68407
65°	71710	57876	57876
70°	62643	49335	49335
75°	53519	41843	46799
80°	42406	37434	42406
85°	27314	32267	39768



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.5	4.9
10°-20°	364.7	13.8
20°-30°	510.9	19.3
30°-40°	526.4	19.9
40°-50°	448.2	16.9
50°-60°	332.1	12.5
60°-70°	208.4	7.9
70°-80°	103.5	3.9
80°-90°	27.2	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°	1005.1	37.9
0°-40°	1531.5	57.8
0°-60°	2311.7	87.2
0°-90°	2650.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2650.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1367	1367	1367	1367	1367	
5°	1432	1407	1360	1321	1309	138
15°	1481	1414	1279	1186	1160	416
25°	1339	1246	1076	983	962	612
35°	1007	932	805	753	751	628
45°	667	621	549	539	553	517
55°	421	388	346	353	363	381
65°	246	221	198	195	198	245
75°	112	100	88	95	98	120
85°	19	19	23	26	28	25
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°	1366.9	1366.9	1366.9	1366.9	1366.9	1366.9	1366.9	1366.9	1366.9
2.5°	1396.7	1391.4	1384.4	1372.1	1359.8	1349.3	1338.8	1333.5	1331.8
5°	1431.8	1421.3	1407.2	1384.4	1359.8	1338.8	1321.2	1312.4	1308.9
7.5°	1456.4	1445.9	1423.0	1387.9	1352.8	1321.2	1293.1	1280.8	1277.3
10°	1465.2	1452.9	1421.3	1373.9	1328.2	1289.6	1258.1	1242.3	1235.3
12.5°	1472.2	1456.4	1416.0	1359.8	1303.7	1256.4	1223.0	1202.0	1196.7
15°	1481.0	1463.4	1414.3	1345.8	1279.2	1223.0	1186.2	1166.8	1159.8
17.5°	1472.2	1452.9	1395.0	1317.7	1242.3	1180.9	1140.5	1123.0	1115.9
20°	1442.4	1421.3	1356.3	1273.9	1193.2	1130.0	1089.6	1072.1	1063.4
22.5°	1396.7	1373.9	1307.2	1219.5	1137.0	1075.7	1037.0	1019.5	1014.2
25°	1338.8	1316.0	1245.8	1156.3	1075.7	1016.0	982.6	966.8	961.5
27.5°	1270.4	1247.6	1179.1	1091.5	1014.2	958.0	931.7	915.9	912.4
30°	1187.9	1165.1	1098.4	1017.7	945.7	893.2	872.1	859.8	858.1
32.5°	1096.6	1077.4	1016.0	942.2	873.9	830.0	814.2	805.4	803.6
35°	1007.2	986.1	931.7	865.1	805.4	766.8	752.7	751.0	751.0
37.5°	915.9	894.8	851.0	789.6	738.7	703.6	698.3	700.1	700.1
40°	826.5	807.2	768.5	717.6	672.1	645.7	644.0	647.5	649.3
42.5°	742.2	726.4	691.4	647.5	608.9	587.8	589.6	596.6	601.9
45°	666.8	652.8	621.2	582.5	549.2	533.4	538.7	547.4	552.7
47.5°	598.3	586.1	556.2	521.1	493.0	482.6	489.6	500.0	507.1
50°	535.1	524.6	496.5	459.8	436.9	429.9	438.7	449.2	452.7
52.5°	479.1	468.5	438.7	407.1	389.5	386.0	394.8	403.6	408.8
55°	421.1	412.4	387.8	359.7	345.6	343.9	352.7	359.7	363.2
57.5°	373.7	365.0	342.1	317.6	305.3	303.5	312.3	317.6	319.3
60°	328.1	319.3	298.2	275.5	266.7	266.7	272.0	275.5	277.3
62.5°	286.1	277.3	258.0	238.7	231.6	231.6	231.6	233.4	238.7
65°	245.7	238.7	221.1	203.5	198.3	194.8	194.8	194.8	198.3
67.5°	208.8	201.8	187.7	171.9	166.7	161.4	159.7	163.2	163.2
70°	173.7	168.4	154.4	142.1	136.8	131.6	129.8	136.8	136.8
72.5°	142.1	136.8	128.1	115.8	110.5	108.7	112.3	115.8	117.5
75°	112.3	107.0	100.1	92.9	87.8	89.5	94.8	96.6	98.2
77.5°	84.3	82.5	75.5	70.2	70.2	72.0	75.5	79.0	80.8
80°	59.7	57.9	54.4	50.9	52.7	56.2	57.9	61.4	59.7
82.5°	36.9	36.9	35.1	35.1	36.9	40.4	42.1	43.9	45.6
85°	19.3	19.3	19.3	21.1	22.8	24.6	26.3	28.1	28.1
87.5°	5.3	7.0	7.0	8.8	10.5	10.5	12.3	12.3	12.3
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)