

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: P580396

Luminaire Tested: **HC430D010-HM43040940-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580396  
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: HC430D010-HM43040940-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2128.3 lumens  
Efficiency: N/A  
Efficacy: 76.0 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

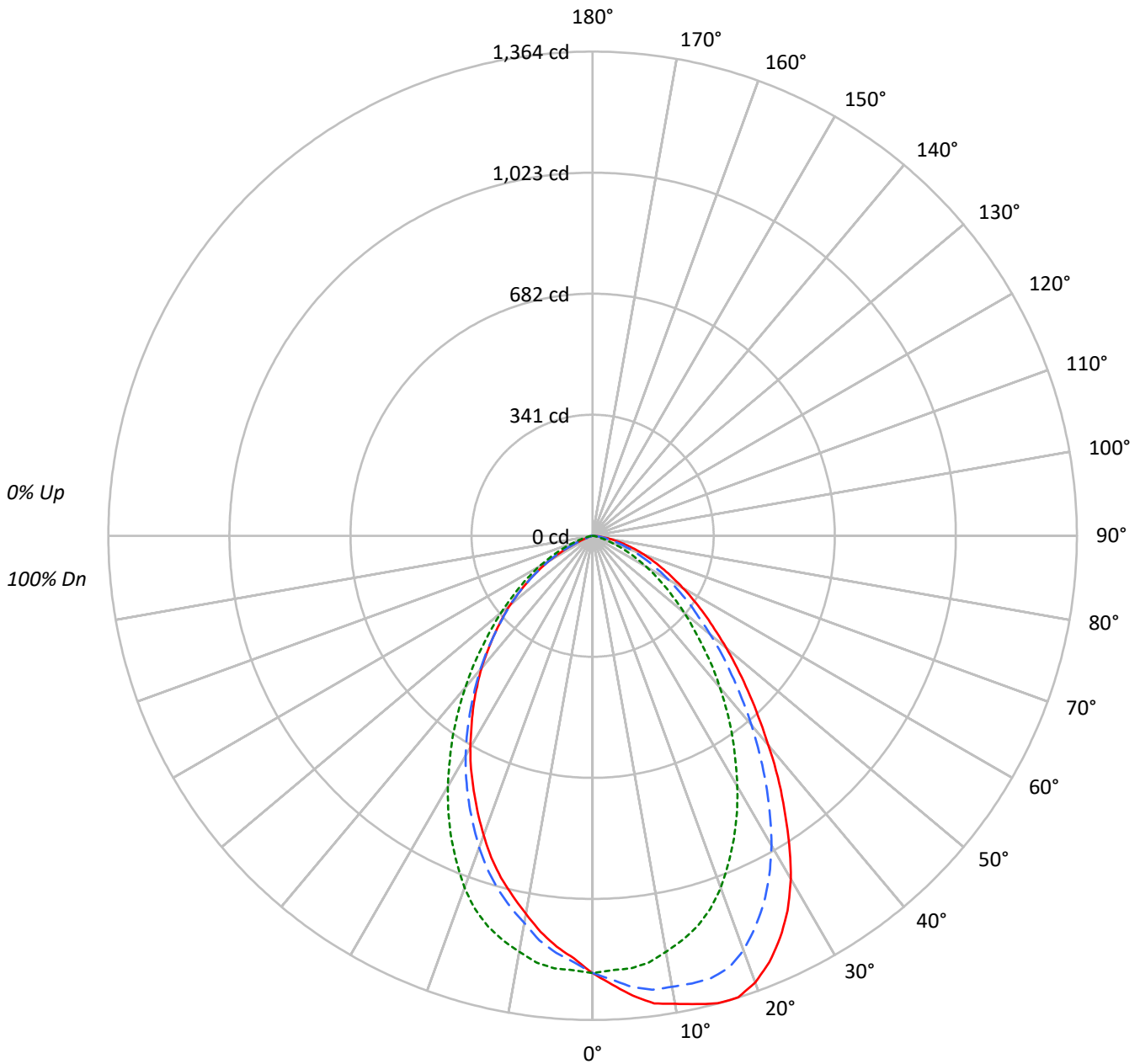
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
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	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°	151974	151974	151974
5°	161024	151477	143887
10°	167708	149046	135444
15°	174127	145485	127352
20°	175759	138494	117781
25°	170080	128094	107816
30°	159020	116078	98104
35°	141723	103191	88148
40°	123886	89734	78463
45°	107924	76124	67856
50°	94180	64572	58182
55°	82556	53504	47117
60°	72207	43245	34586
65°	62925	32221	19438
70°	54997	20881	6311
75°	45084	10866	1668
80°	33669	4972	1279
85°	19813	2547	2547



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.3	5.5
10°-20°	325.5	15.3
20°-30°	450.0	21.1
30°-40°	452.5	21.3
40°-50°	365.1	17.2
50°-60°	246.9	11.6
60°-70°	125.6	5.9
70°-80°	40.2	1.9
80°-90°	6.2	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°	891.8	41.9
0°-40°	1344.2	63.2
0°-60°	1956.2	91.9
0°-90°	2128.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2128.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1232	1232	1232	1232	1232	
5°	1300	1276	1223	1180	1162	125
15°	1364	1290	1139	1030	997	384
25°	1250	1141	941	826	792	572
35°	941	850	685	599	585	588
45°	619	554	436	389	389	479
55°	384	331	249	217	219	345
65°	216	175	110	72	67	216
75°	95	67	23	5	4	102
85°	14	7	2	2	2	19
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°	1232.1	1232.1	1232.1	1232.1	1232.1	1232.1	1232.1	1232.1	1232.1
2.5°	1265.4	1258.4	1251.4	1239.1	1225.1	1211.1	1202.3	1195.3	1191.8
5°	1300.5	1291.7	1276.0	1249.7	1223.4	1198.8	1179.5	1167.3	1162.1
7.5°	1328.6	1316.3	1290.0	1253.2	1212.8	1174.2	1149.8	1132.3	1125.2
10°	1339.0	1325.1	1290.0	1240.9	1190.0	1142.8	1107.7	1090.2	1081.4
12.5°	1351.3	1335.6	1291.7	1230.4	1167.3	1111.2	1070.9	1048.1	1039.3
15°	1363.6	1342.5	1290.0	1214.6	1139.3	1074.4	1030.5	1007.8	997.3
17.5°	1363.6	1339.0	1276.0	1188.3	1102.4	1034.0	985.0	958.7	950.0
20°	1339.0	1311.0	1242.6	1146.3	1055.1	981.5	934.2	907.9	897.3
22.5°	1300.5	1269.0	1195.3	1095.4	999.1	927.2	879.8	855.4	844.8
25°	1249.7	1218.1	1141.0	1037.5	941.2	869.3	825.5	802.7	792.2
27.5°	1190.0	1155.1	1077.9	974.5	879.8	811.5	771.2	750.1	741.4
30°	1116.5	1083.1	1007.8	906.1	815.0	751.9	715.0	695.9	688.8
32.5°	1030.5	1002.6	928.9	834.3	748.4	690.6	657.3	641.5	634.5
35°	941.2	914.9	850.1	762.4	685.3	631.0	599.4	588.9	585.4
37.5°	857.1	834.3	771.2	690.6	620.4	573.1	545.0	538.1	534.6
40°	769.4	753.6	695.9	622.2	557.3	515.3	492.5	487.3	487.3
42.5°	690.6	673.1	622.2	555.7	497.8	455.7	439.9	434.6	436.4
45°	618.7	601.2	553.8	492.5	436.4	401.3	389.0	389.0	389.0
47.5°	552.0	536.4	492.5	429.4	383.9	355.8	343.5	343.5	345.3
50°	490.8	480.2	431.1	376.9	336.5	310.2	301.5	299.7	303.2
52.5°	432.9	420.6	376.9	327.8	289.2	268.1	259.4	257.6	259.4
55°	383.9	369.9	331.3	283.9	248.8	227.9	217.4	215.6	219.1
57.5°	336.5	326.0	285.7	243.6	210.4	189.3	180.5	177.0	178.8
60°	292.7	282.2	245.3	205.1	175.3	154.2	142.0	138.5	140.2
62.5°	252.3	243.6	208.6	170.0	140.2	120.9	108.6	99.9	103.4
65°	215.6	206.8	175.3	136.7	110.4	89.3	71.9	64.9	66.6
67.5°	184.0	173.5	143.7	108.6	82.3	59.6	40.3	36.8	36.8
70°	152.5	142.0	115.7	84.1	57.9	31.6	17.5	17.5	17.5
72.5°	122.7	113.9	89.3	63.1	36.8	14.0	7.0	7.0	7.0
75°	94.6	87.6	66.6	43.8	22.8	7.0	5.3	3.5	3.5
77.5°	70.2	63.1	47.4	29.8	14.0	3.5	3.5	3.5	3.5
80°	47.4	42.1	31.6	17.5	7.0	1.8	1.8	1.8	1.8
82.5°	28.1	24.6	17.5	8.8	3.5	1.8	1.8	1.8	1.8
85°	14.0	10.5	7.0	3.5	1.8	1.8	1.8	1.8	1.8
87.5°	3.5	1.8	1.8	1.8	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



Report Generated By 670245859 / DESKTOP-HRDQ47P







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)