

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: P580143

Luminaire Tested: **HC425D010-HM40525830-41RWWH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580143  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC425D010-HM40525830-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2452.9 lumens  
Efficiency: N/A  
Efficacy: 91.5 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

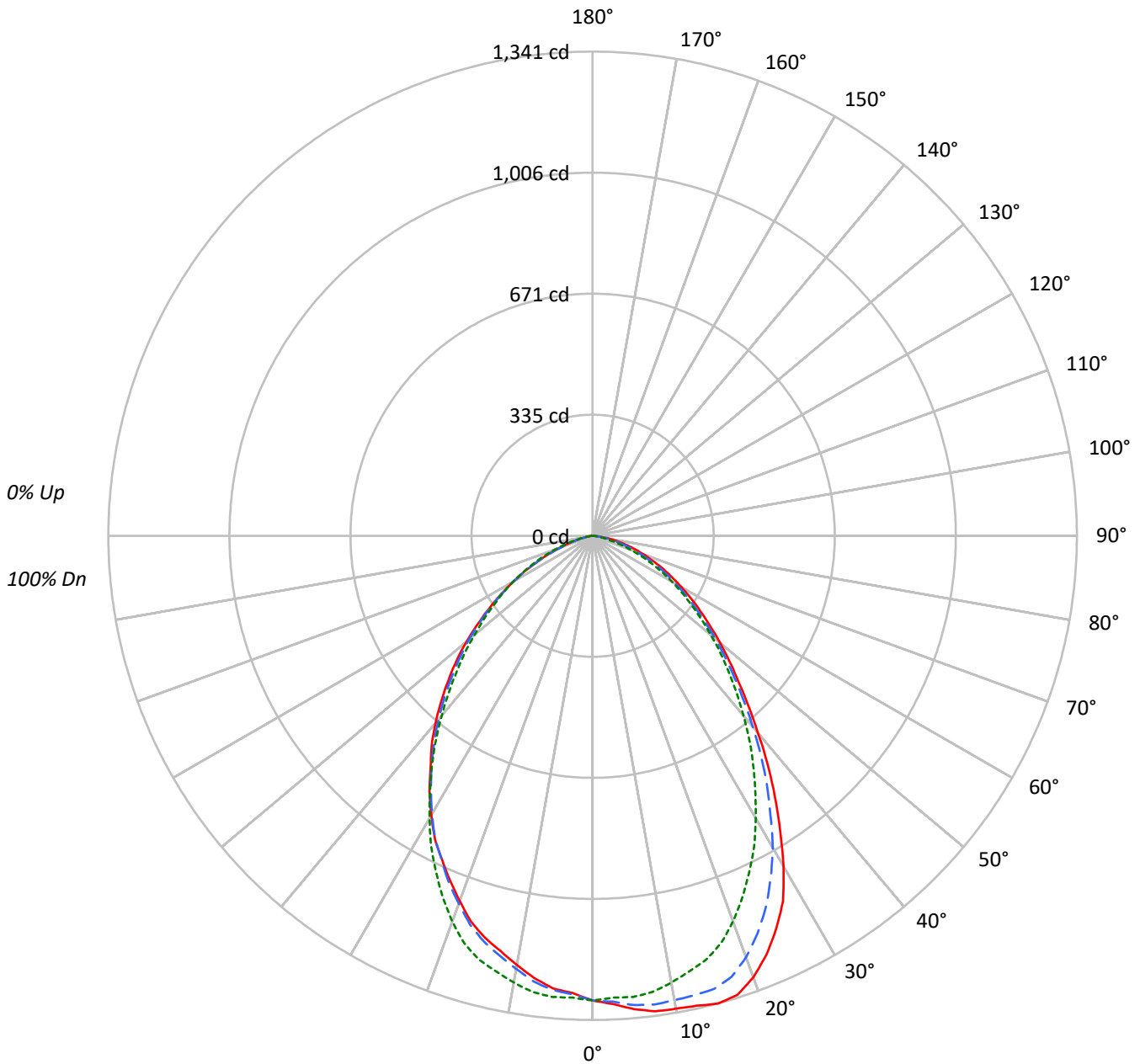
Input Watts (W): 26.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77			77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67			67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59			59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52			52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47			47
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42			42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38			38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35			35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32			32

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	158733	158733	158733
5°	162906	158746	155786
10°	166593	157387	151175
15°	171280	155152	147183
20°	170811	149205	141224
25°	163616	139690	134464
30°	150503	128640	127273
35°	132403	116758	117706
40°	114547	104516	108895
45°	99551	92853	98435
50°	88347	81919	87445
55°	78363	71847	74944
60°	69789	62314	62314
65°	62050	51805	48536
70°	53627	39201	34621
75°	44941	25878	21303
80°	34095	12502	11365
85°	18115	4529	4529



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.9	5.0
10°-20°	345.5	14.1
20°-30°	487.3	19.9
30°-40°	503.4	20.5
40°-50°	426.7	17.4
50°-60°	310.5	12.7
60°-70°	181.4	7.4
70°-80°	67.4	2.7
80°-90°	8.8	0.4
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°	954.7	38.9
0°-40°	1458.1	59.4
0°-60°	2195.3	89.5
0°-90°	2452.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2452.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1287	1287	1287	1287	1287	
5°	1316	1305	1282	1263	1258	126
15°	1341	1300	1215	1164	1153	377
25°	1202	1135	1026	990	988	550
35°	879	841	775	777	782	549
45°	571	555	532	552	564	444
55°	364	347	334	345	348	328
65°	213	195	178	166	166	211
75°	94	78	54	43	45	101
85°	13	8	3	3	3	18
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°	1286.9	1286.9	1286.9	1286.9	1286.9	1286.9	1286.9	1286.9	1286.9
2.5°	1298.1	1295.0	1291.7	1286.9	1280.5	1275.8	1270.9	1267.8	1267.8
5°	1315.7	1310.9	1304.6	1293.3	1282.1	1272.5	1262.9	1258.2	1258.2
7.5°	1328.5	1322.1	1309.3	1293.3	1274.2	1259.7	1245.4	1239.0	1235.8
10°	1330.1	1323.6	1306.1	1282.1	1256.6	1234.2	1218.2	1208.6	1207.0
12.5°	1333.2	1325.3	1302.9	1269.3	1235.8	1208.6	1191.0	1181.4	1178.2
15°	1341.3	1330.1	1299.7	1256.6	1215.0	1183.0	1163.8	1155.9	1152.6
17.5°	1333.2	1317.3	1280.5	1229.4	1183.0	1147.9	1128.7	1120.6	1120.6
20°	1301.3	1285.4	1242.1	1186.2	1136.7	1103.0	1083.8	1079.1	1075.9
22.5°	1256.6	1239.0	1192.6	1133.4	1083.8	1053.5	1040.7	1034.4	1032.7
25°	1202.2	1184.7	1135.1	1074.4	1026.4	1000.7	989.6	989.6	988.0
27.5°	1141.4	1119.1	1067.9	1015.2	968.8	949.6	944.9	944.9	946.4
30°	1056.7	1040.7	997.6	946.4	903.2	890.4	890.4	893.6	893.6
32.5°	965.6	954.5	916.1	871.2	837.7	829.7	832.9	839.3	840.9
35°	879.3	866.5	840.9	800.9	775.4	772.1	777.0	781.7	781.7
37.5°	794.6	781.7	764.1	732.2	713.0	714.7	721.0	727.4	732.2
40°	711.4	701.8	689.0	663.4	649.1	655.5	663.4	669.8	676.3
42.5°	637.9	628.3	618.7	599.5	589.9	597.9	607.5	613.8	620.3
45°	570.7	564.3	554.8	538.8	532.3	540.3	551.5	558.0	564.3
47.5°	513.1	510.0	497.2	482.8	479.6	487.6	497.2	505.2	510.0
50°	460.4	455.7	444.4	430.0	426.9	439.6	446.1	450.8	455.7
52.5°	409.3	404.4	391.7	378.9	378.9	388.5	393.2	394.9	399.7
55°	364.4	359.7	346.9	337.3	334.1	342.1	345.4	345.4	348.5
57.5°	322.9	318.2	305.4	294.1	292.5	297.4	297.4	297.4	299.0
60°	282.9	278.2	265.4	255.8	252.6	254.1	252.6	251.0	252.6
62.5°	246.2	241.4	228.6	217.4	214.2	214.2	209.4	207.8	209.4
65°	212.6	204.6	195.1	183.8	177.5	172.6	166.3	166.3	166.3
67.5°	179.1	172.6	161.4	150.3	142.3	134.2	124.6	127.9	129.5
70°	148.7	143.8	131.1	119.9	108.7	99.1	91.1	94.3	96.0
72.5°	121.5	115.2	103.9	91.1	81.5	68.8	63.9	67.2	67.2
75°	94.3	87.9	78.4	65.6	54.3	43.1	43.1	44.7	44.7
77.5°	70.3	63.9	54.3	43.1	33.5	25.6	27.2	27.2	27.2
80°	48.0	43.1	35.2	25.6	17.6	14.3	14.3	14.3	16.0
82.5°	27.2	23.9	19.2	12.8	8.0	8.0	8.0	8.0	8.0
85°	12.8	9.6	8.0	4.7	3.2	3.2	3.2	3.2	3.2
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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)