

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: P580233

Luminaire Tested: **HC425D010-HM40525935-41RWWH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580233  
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-HM40525935-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2270.7 lumens  
Efficiency: N/A  
Efficacy: 84.7 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

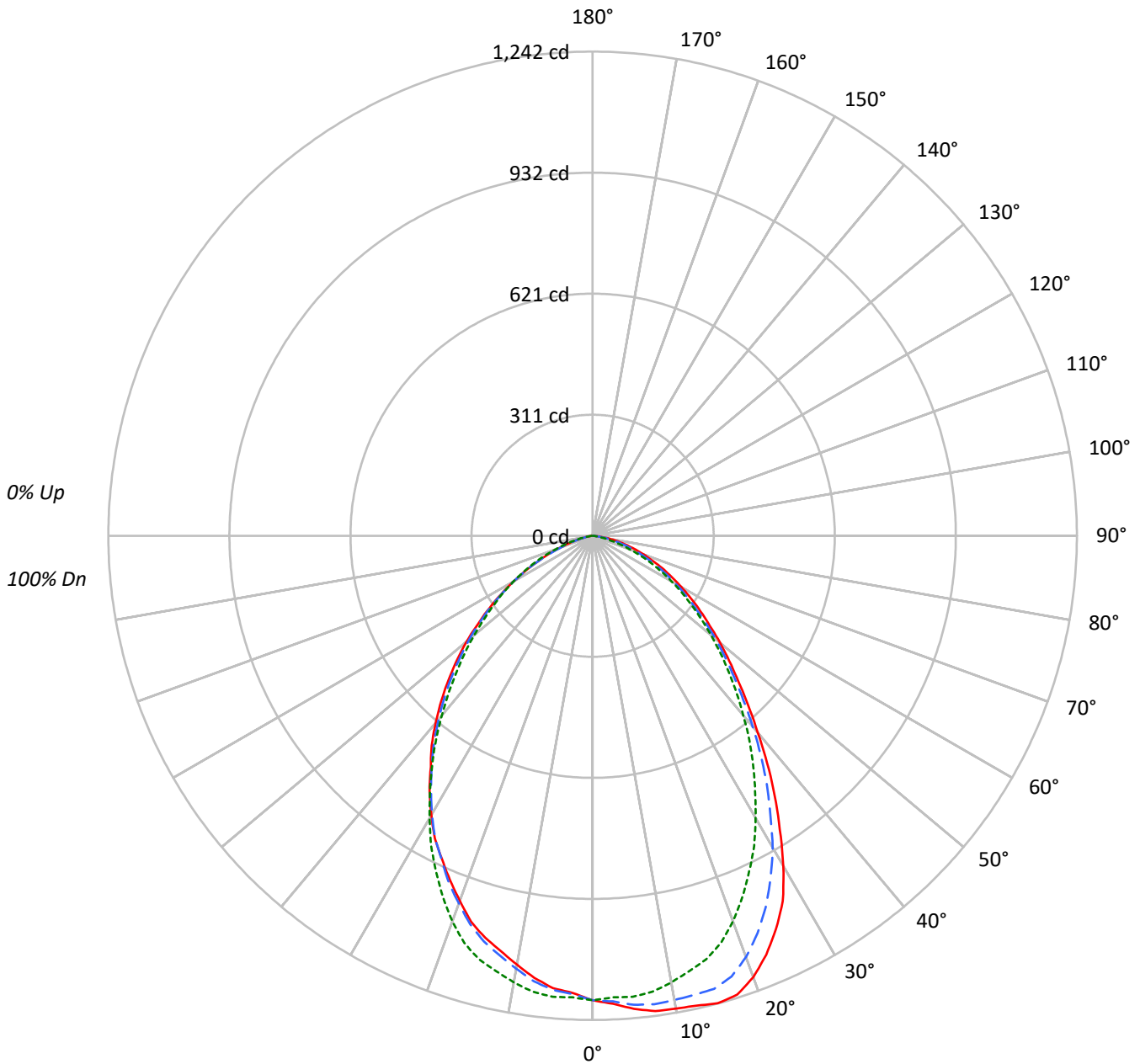
Input Watts (W): 26.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	146942	146942	146942
5°	150809	146958	144209
10°	154218	145689	139940
15°	158561	143621	136252
20°	158118	138114	130737
25°	151462	129306	124474
30°	139322	119083	117816
35°	122555	108069	108973
40°	106029	96755	100796
45°	92173	85963	91126
50°	81784	75836	80940
55°	72578	66514	69396
60°	64608	57676	57676
65°	57438	47953	44917
70°	49624	36280	31989
75°	41605	24019	19730
80°	31538	11578	10513
85°	16841	4104	4104



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.8	5.0
10°-20°	319.9	14.1
20°-30°	451.1	19.9
30°-40°	466.0	20.5
40°-50°	395.0	17.4
50°-60°	287.4	12.7
60°-70°	167.9	7.4
70°-80°	62.4	2.7
80°-90°	8.2	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°	883.7	38.9
0°-40°	1349.7	59.4
0°-60°	2032.1	89.5
0°-90°	2270.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2270.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1191	1191	1191	1191	1191	
5°	1218	1208	1187	1169	1165	117
15°	1242	1203	1125	1077	1067	349
25°	1113	1051	950	916	915	509
35°	814	778	718	719	724	508
45°	528	514	493	510	522	411
55°	338	321	309	320	323	304
65°	197	180	164	154	154	195
75°	87	72	50	40	41	94
85°	12	8	3	3	3	17
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°	1191.3	1191.3	1191.3	1191.3	1191.3	1191.3	1191.3	1191.3	1191.3
2.5°	1201.7	1198.7	1195.7	1191.3	1185.3	1180.9	1176.5	1173.6	1173.6
5°	1218.0	1213.4	1207.6	1197.2	1186.9	1178.0	1169.1	1164.7	1164.7
7.5°	1229.8	1223.8	1212.0	1197.2	1179.5	1166.1	1152.8	1147.0	1143.9
10°	1231.3	1225.3	1209.0	1186.9	1163.2	1142.4	1127.6	1118.8	1117.3
12.5°	1234.2	1226.8	1206.1	1175.1	1143.9	1118.8	1102.5	1093.7	1090.7
15°	1241.7	1231.3	1203.2	1163.2	1124.7	1095.1	1077.4	1070.0	1067.0
17.5°	1234.2	1219.4	1185.3	1138.0	1095.1	1062.5	1044.8	1037.4	1037.4
20°	1204.6	1189.9	1149.9	1098.1	1052.2	1021.1	1003.3	998.9	996.0
22.5°	1163.2	1147.0	1104.0	1049.3	1003.3	975.2	963.4	957.5	956.0
25°	1112.9	1096.6	1050.8	994.5	950.1	926.5	916.1	916.1	914.6
27.5°	1056.6	1036.0	988.6	939.8	896.8	879.0	874.6	874.6	876.1
30°	978.2	963.4	923.4	876.1	836.1	824.3	824.3	827.2	827.2
32.5°	893.8	883.4	848.0	806.6	775.5	768.1	771.0	777.0	778.4
35°	813.9	802.0	778.4	741.4	717.7	714.8	719.2	723.7	723.7
37.5°	735.5	723.7	707.4	677.7	660.0	661.5	667.5	673.3	677.7
40°	658.5	649.6	637.9	614.2	600.9	606.7	614.2	620.0	626.0
42.5°	590.5	581.5	572.7	554.9	546.1	553.4	562.4	568.2	574.2
45°	528.4	522.4	513.5	498.7	492.8	500.1	510.5	516.5	522.4
47.5°	475.1	472.0	460.3	447.0	443.9	451.4	460.3	467.6	472.0
50°	426.2	421.8	411.4	398.1	395.2	407.0	412.9	417.3	421.8
52.5°	378.9	374.4	362.5	350.8	350.8	359.6	364.1	365.6	370.0
55°	337.5	332.9	321.1	312.3	309.3	316.7	319.6	319.6	322.7
57.5°	299.0	294.4	282.7	272.3	270.8	275.3	275.3	275.3	276.7
60°	261.9	257.5	245.7	236.8	233.8	235.3	233.8	232.3	233.8
62.5°	227.9	223.4	211.6	201.3	198.3	198.3	193.8	192.4	193.8
65°	196.8	189.4	180.5	170.1	164.3	159.9	153.9	153.9	153.9
67.5°	165.7	159.9	149.5	139.1	131.8	124.3	115.4	118.4	119.9
70°	137.6	133.2	121.4	111.0	100.6	91.8	84.3	87.3	88.7
72.5°	112.4	106.6	96.2	84.3	75.5	63.7	59.2	62.2	62.2
75°	87.3	81.4	72.5	60.6	50.4	40.0	40.0	41.4	41.4
77.5°	65.1	59.2	50.4	40.0	31.0	23.7	25.2	25.2	25.2
80°	44.4	40.0	32.5	23.7	16.3	13.3	13.3	13.3	14.8
82.5°	25.2	22.2	17.7	11.9	7.5	7.5	7.5	7.5	7.5
85°	11.9	8.9	7.5	4.4	2.9	2.9	2.9	2.9	2.9
87.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
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)