

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: P592705

Luminaire Tested: **HC425D010-HM40525850-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592705  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC425D010-HM40525850-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

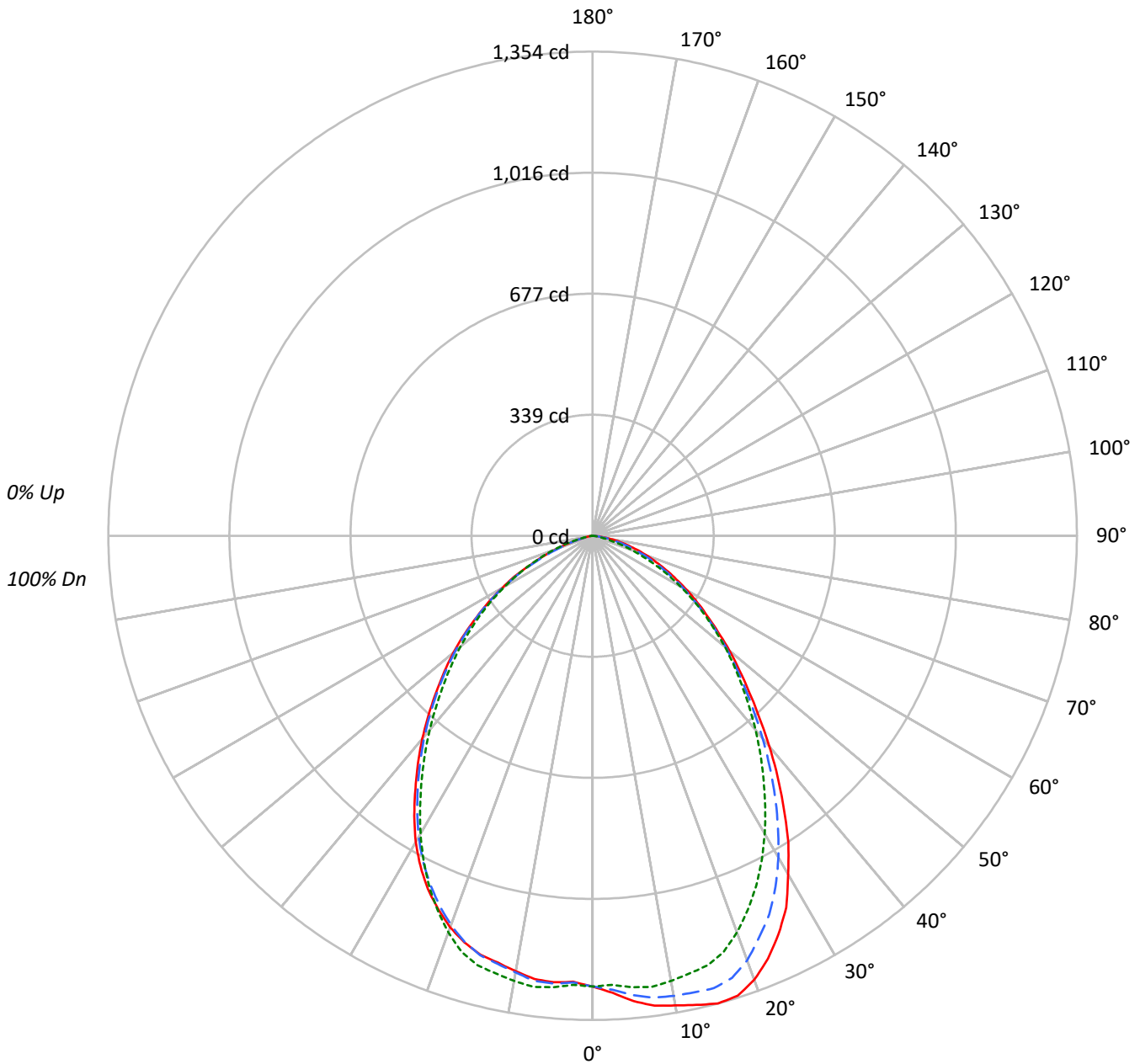
Lumens per Lamp: N/A  
Luminaire Lumens: 2626.4 lumens  
Efficiency: N/A  
Efficacy: 98.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88			88
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76			76
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67			67
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58			58
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52			52
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46			46
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41			41
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37			37
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34			34
10	58	46	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°	155452	155452	155452
5°	161754	156901	155204
10°	167031	158289	154870
15°	172901	158778	154858
20°	173475	154928	152920
25°	167358	147189	148346
30°	155730	137044	140946
35°	140293	125416	130023
40°	123693	114096	119281
45°	108134	102796	107837
50°	95754	92492	97404
55°	84255	81675	84986
60°	75191	69740	71861
65°	66106	56679	55687
70°	57738	41762	38083
75°	47895	25163	20302
80°	36297	9731	6038
85°	16983	2406	2406



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.6	4.6
10°-20°	354.8	13.5
20°-30°	513.8	19.6
30°-40°	542.0	20.6
40°-50°	469.1	17.9
50°-60°	347.5	13.2
60°-70°	200.3	7.6
70°-80°	70.0	2.7
80°-90°	7.4	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°	990.1	37.7
0°-40°	1532.1	58.3
0°-60°	2348.7	89.4
0°-90°	2626.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2626.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1260	1260	1260	1260	1260	
5°	1306	1289	1267	1257	1254	125
15°	1354	1310	1243	1214	1213	381
25°	1230	1168	1082	1075	1090	563
35°	932	889	833	852	864	582
45°	620	603	589	612	618	481
55°	392	383	380	394	395	353
65°	226	213	194	184	191	226
75°	100	85	53	43	43	108
85°	12	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°	1260.3	1260.3	1260.3	1260.3	1260.3	1260.3	1260.3	1260.3	1260.3
2.5°	1279.0	1275.7	1270.6	1263.8	1256.9	1251.8	1250.1	1248.4	1248.4
5°	1306.4	1299.5	1289.3	1275.7	1267.2	1262.0	1256.9	1253.5	1253.5
7.5°	1325.1	1318.2	1302.9	1284.2	1272.3	1262.0	1255.2	1250.1	1250.1
10°	1333.6	1325.1	1306.4	1282.4	1263.8	1250.1	1239.9	1236.5	1236.5
12.5°	1343.8	1333.6	1308.1	1277.4	1253.5	1236.5	1226.3	1222.8	1222.8
15°	1354.0	1342.0	1309.8	1274.0	1243.4	1222.8	1214.4	1212.7	1212.7
17.5°	1348.9	1333.6	1296.1	1253.5	1219.4	1199.0	1190.5	1190.5	1192.2
20°	1321.6	1306.4	1263.8	1216.0	1180.3	1165.0	1158.1	1161.5	1165.0
22.5°	1280.7	1262.0	1216.0	1170.1	1132.6	1119.0	1119.0	1124.1	1129.2
25°	1229.7	1212.7	1168.4	1117.3	1081.5	1071.3	1074.7	1083.2	1090.0
27.5°	1171.8	1153.0	1107.1	1059.3	1023.6	1018.5	1027.1	1038.9	1042.3
30°	1093.4	1078.1	1038.9	993.0	962.2	960.6	972.5	981.0	989.6
32.5°	1018.5	1001.4	963.9	919.7	897.6	899.2	912.9	923.1	928.3
35°	931.7	916.3	889.1	853.3	832.9	836.3	851.6	861.8	863.5
37.5°	849.9	839.6	812.4	785.1	769.9	776.6	790.3	802.2	802.2
40°	768.2	759.6	739.2	717.0	708.6	717.0	730.7	740.8	740.8
42.5°	689.8	684.6	667.7	652.3	647.3	659.1	671.1	679.5	677.9
45°	619.9	614.9	602.9	591.0	589.3	601.2	611.5	616.5	618.2
47.5°	556.9	553.5	543.3	534.8	534.8	546.7	555.2	560.3	562.0
50°	499.0	495.6	487.1	480.3	482.0	493.9	500.7	505.8	507.6
52.5°	441.1	439.4	432.6	424.1	429.2	437.7	446.2	449.7	451.4
55°	391.8	391.8	383.2	376.4	379.8	388.4	393.5	395.2	395.2
57.5°	347.4	345.7	335.5	328.8	330.5	338.9	342.3	344.0	344.0
60°	304.8	303.1	293.0	282.7	282.7	287.8	289.6	291.3	291.3
62.5°	264.0	262.3	250.4	241.8	238.4	236.8	236.8	240.1	246.9
65°	226.5	224.8	212.9	199.3	194.2	189.1	183.9	187.3	190.8
67.5°	192.5	189.1	177.1	165.2	153.3	144.7	136.3	141.4	148.1
70°	160.1	156.7	143.0	129.5	115.8	102.2	95.4	102.2	105.6
72.5°	129.5	126.0	112.4	98.8	81.7	68.1	66.4	68.1	69.9
75°	100.5	98.8	85.1	69.9	52.8	42.6	42.6	42.6	42.6
77.5°	75.0	71.6	57.9	44.3	30.7	23.8	22.1	22.1	22.1
80°	51.1	47.6	35.8	25.5	13.7	10.3	10.3	8.5	8.5
82.5°	28.9	27.2	18.7	10.3	5.1	3.4	3.4	3.4	3.4
85°	12.0	10.3	6.8	3.4	1.7	1.7	1.7	1.7	1.7
87.5°	1.7	1.7	1.7	0.0	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)