

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: P580161

Luminaire Tested: **HC425D010-HM40525835-41RWWH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580161  
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-HM40525835-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2542.5 lumens  
Efficiency: N/A  
Efficacy: 94.9 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

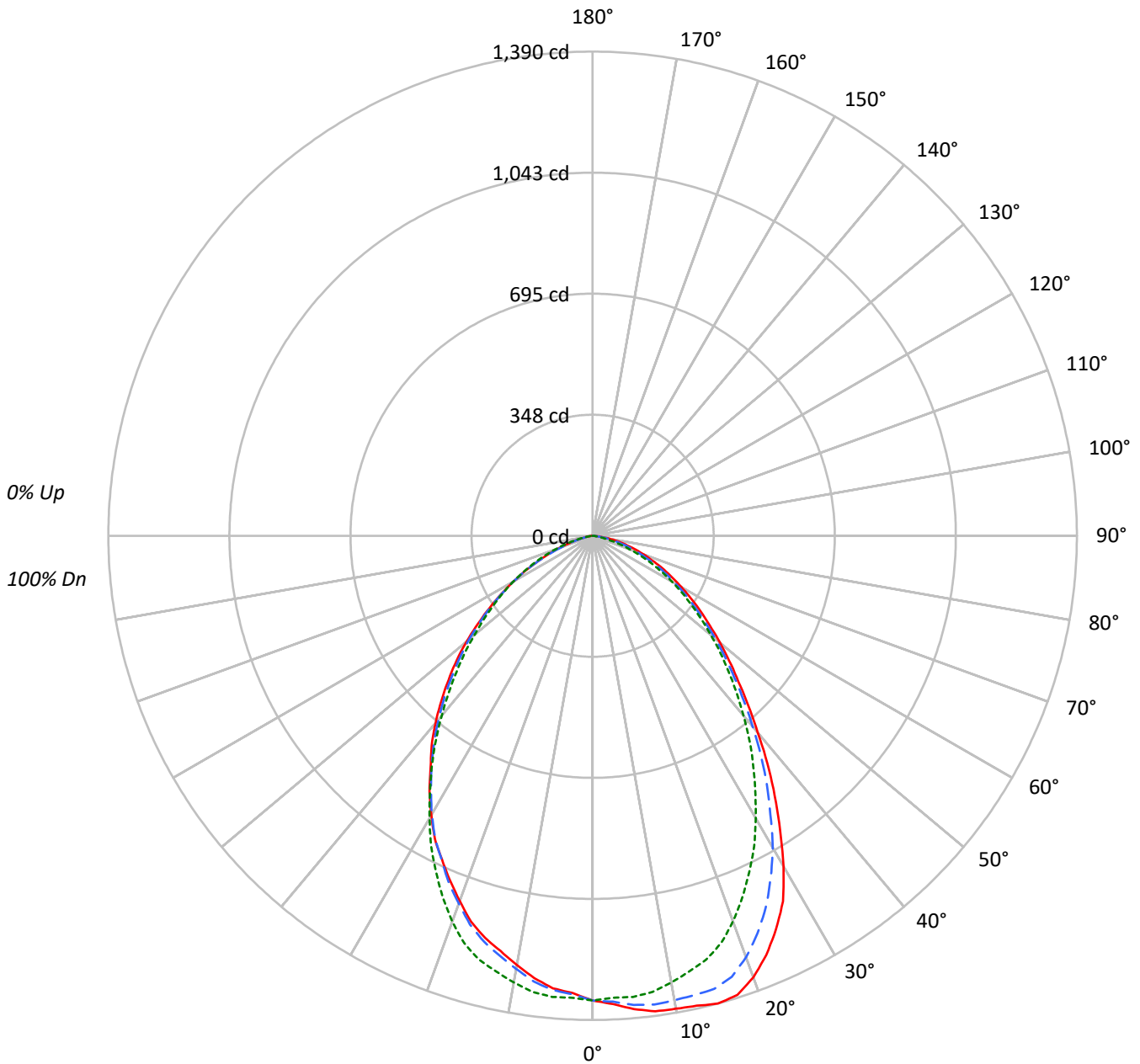
Input Watts (W): 26.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
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	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77																			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67																			
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47																			
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35																			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

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

	0°	90°	180°
0°	164531	164531	164531
5°	168861	164540	161469
10°	172680	163124	156686
15°	177537	160821	152559
20°	177046	154653	146383
25°	169590	144793	139377
30°	156015	133355	131930
35°	137236	121019	122013
40°	118717	108332	112872
45°	103197	96272	102028
50°	91571	84912	90630
55°	81245	74492	77696
60°	72355	64584	64584
65°	64326	53673	50288
70°	55574	40644	35884
75°	46609	26831	22113
80°	35303	12928	11791
85°	18681	4670	4670



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.3	5.0
10°-20°	358.1	14.1
20°-30°	505.1	19.9
30°-40°	521.8	20.5
40°-50°	442.3	17.4
50°-60°	321.8	12.7
60°-70°	188.0	7.4
70°-80°	69.9	2.7
80°-90°	9.1	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°	989.6	38.9
0°-40°	1511.3	59.4
0°-60°	2275.4	89.5
0°-90°	2542.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2542.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1334	1334	1334	1334	1334	
5°	1364	1352	1329	1309	1304	131
15°	1390	1347	1259	1206	1195	391
25°	1246	1176	1064	1026	1024	570
35°	911	872	804	805	810	569
45°	592	575	552	572	585	460
55°	378	360	346	358	361	340
65°	220	202	184	172	172	219
75°	98	81	56	45	46	105
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°	1333.9	1333.9	1333.9	1333.9	1333.9	1333.9	1333.9	1333.9	1333.9
2.5°	1345.5	1342.3	1338.9	1333.9	1327.4	1322.4	1317.4	1314.0	1314.0
5°	1363.8	1358.8	1352.2	1340.6	1328.9	1319.0	1309.1	1304.1	1304.1
7.5°	1377.0	1370.4	1357.2	1340.6	1320.7	1305.8	1290.9	1284.2	1281.0
10°	1378.7	1372.1	1353.8	1328.9	1302.4	1279.3	1262.7	1252.7	1251.0
12.5°	1382.0	1373.8	1350.5	1315.7	1281.0	1252.7	1234.6	1224.6	1221.2
15°	1390.3	1378.7	1347.2	1302.4	1259.4	1226.2	1206.3	1198.1	1194.7
17.5°	1382.0	1365.4	1327.4	1274.3	1226.2	1189.7	1169.9	1161.6	1161.6
20°	1348.8	1332.3	1287.5	1229.6	1178.2	1143.3	1123.5	1118.5	1115.2
22.5°	1302.4	1284.2	1236.1	1174.8	1123.5	1092.0	1078.8	1072.1	1070.5
25°	1246.1	1227.9	1176.5	1113.5	1063.9	1037.3	1025.7	1025.7	1024.1
27.5°	1183.2	1159.9	1107.0	1052.2	1004.2	984.3	979.3	979.3	981.0
30°	1095.4	1078.8	1034.1	981.0	936.3	923.0	923.0	926.3	926.3
32.5°	1000.9	989.2	949.5	903.1	868.3	860.1	863.3	870.0	871.6
35°	911.4	898.1	871.6	830.2	803.7	800.3	805.3	810.3	810.3
37.5°	823.6	810.3	792.1	758.9	739.0	740.7	747.4	753.9	758.9
40°	737.3	727.4	714.2	687.7	672.8	679.4	687.7	694.3	701.0
42.5°	661.1	651.2	641.3	621.4	611.5	619.7	629.6	636.3	643.0
45°	591.6	584.9	575.0	558.4	551.9	560.1	571.7	578.3	584.9
47.5°	531.9	528.6	515.4	500.5	497.1	505.5	515.4	523.6	528.6
50°	477.2	472.3	460.6	445.7	442.5	455.7	462.3	467.3	472.3
52.5°	424.2	419.2	406.0	392.8	392.8	402.7	407.7	409.3	414.2
55°	377.8	372.8	359.6	349.7	346.4	354.6	357.9	357.9	361.3
57.5°	334.7	329.8	316.5	304.9	303.2	308.2	308.2	308.2	309.9
60°	293.3	288.3	275.0	265.1	261.8	263.5	261.8	260.1	261.8
62.5°	255.2	250.2	237.0	225.3	222.1	222.1	217.1	215.4	217.1
65°	220.4	212.1	202.2	190.6	183.9	178.9	172.3	172.3	172.3
67.5°	185.6	178.9	167.3	155.8	147.4	139.2	129.3	132.5	134.2
70°	154.1	149.1	135.9	124.3	112.7	102.7	94.5	97.8	99.5
72.5°	125.9	119.3	107.7	94.5	84.6	71.2	66.3	69.5	69.5
75°	97.8	91.1	81.2	68.0	56.3	44.7	44.7	46.4	46.4
77.5°	72.9	66.3	56.3	44.7	34.8	26.5	28.2	28.2	28.2
80°	49.7	44.7	36.5	26.5	18.2	14.9	14.9	14.9	16.6
82.5°	28.2	24.8	19.9	13.2	8.2	8.2	8.2	8.2	8.2
85°	13.2	9.9	8.2	5.0	3.3	3.3	3.3	3.3	3.3
87.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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)