

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: P580179

Luminaire Tested: **HC425D010-HM40525840-41RWWH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580179  
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-HM40525840-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2612.7 lumens  
Efficiency: N/A  
Efficacy: 97.5 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

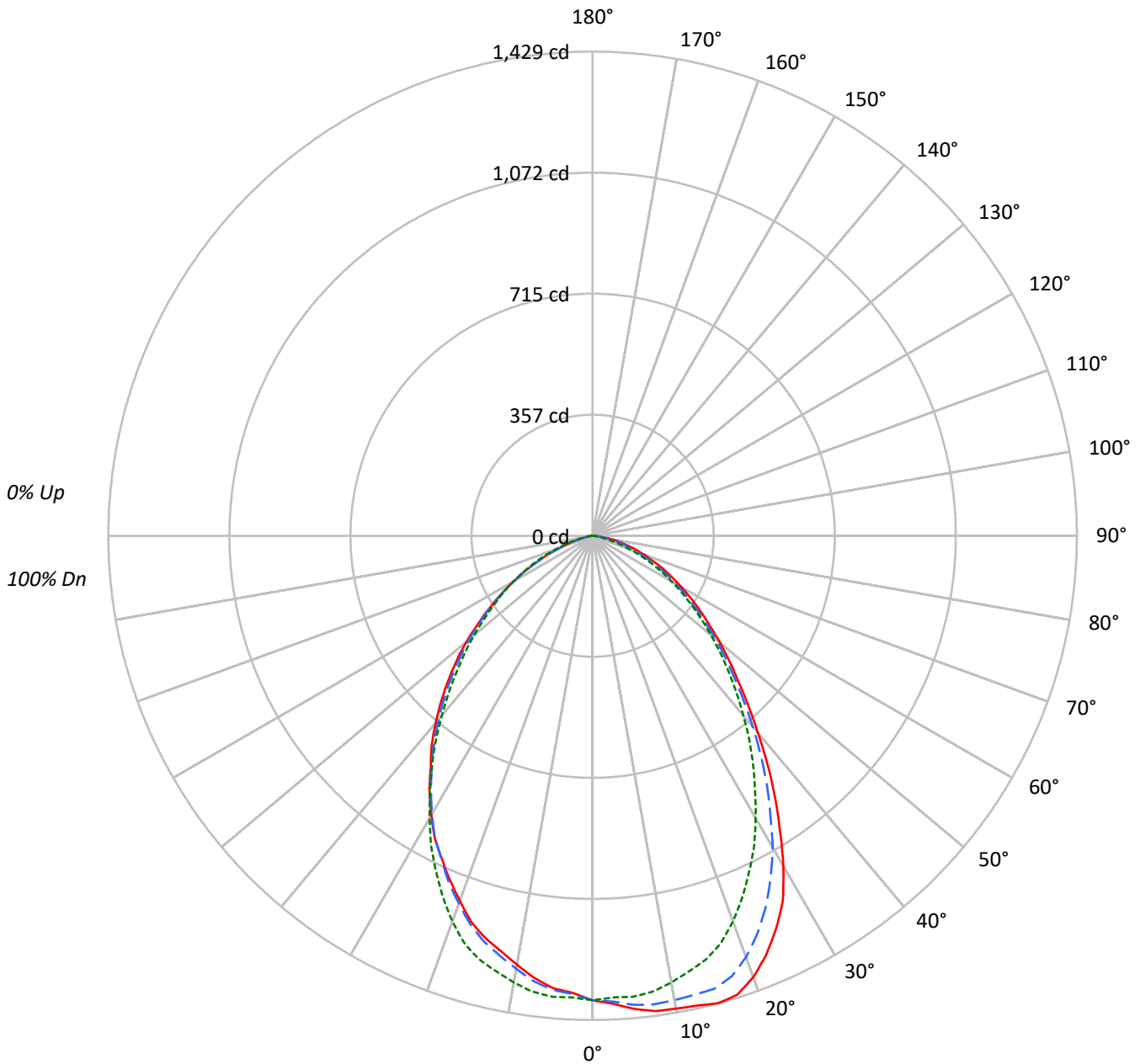
Input Watts (W): 26.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	169082	169082	169082
5°	173517	169084	165927
10°	177452	167633	161019
15°	182428	165265	156786
20°	181942	158919	150426
25°	174272	148781	143215
30°	160316	137029	135577
35°	141016	124362	125371
40°	122018	111327	115980
45°	106058	98923	104854
50°	94104	87234	93144
55°	83503	76535	79825
60°	74353	66360	66360
65°	66106	55162	51689
70°	57125	41762	36857
75°	47895	27593	22685
80°	36226	13283	12075
85°	19389	4812	4812



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.8	5.0
10°-20°	368.0	14.1
20°-30°	519.0	19.9
30°-40°	536.2	20.5
40°-50°	454.5	17.4
50°-60°	330.7	12.7
60°-70°	193.2	7.4
70°-80°	71.8	2.7
80°-90°	9.4	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°	1016.9	38.9
0°-40°	1553.1	59.4
0°-60°	2338.3	89.5
0°-90°	2612.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2612.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1371	1371	1371	1371	1371	
5°	1401	1390	1366	1345	1340	134
15°	1429	1384	1294	1240	1228	402
25°	1280	1209	1093	1054	1052	586
35°	936	896	826	828	833	585
45°	608	591	567	588	601	473
55°	388	370	356	368	371	349
65°	226	208	189	177	177	225
75°	100	83	58	46	48	108
85°	14	8	3	3	3	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°	1370.8	1370.8	1370.8	1370.8	1370.8	1370.8	1370.8	1370.8	1370.8
2.5°	1382.7	1379.3	1375.9	1370.8	1363.9	1358.9	1353.8	1350.4	1350.4
5°	1401.4	1396.3	1389.6	1377.6	1365.6	1355.5	1345.2	1340.1	1340.1
7.5°	1415.1	1408.2	1394.7	1377.6	1357.2	1341.8	1326.5	1319.7	1316.3
10°	1416.8	1409.9	1391.3	1365.6	1338.4	1314.6	1297.6	1287.4	1285.6
12.5°	1420.2	1411.7	1387.8	1352.1	1316.3	1287.4	1268.7	1258.4	1255.0
15°	1428.6	1416.8	1384.4	1338.4	1294.2	1260.1	1239.6	1231.2	1227.8
17.5°	1420.2	1403.1	1363.9	1309.5	1260.1	1222.6	1202.2	1193.7	1193.7
20°	1386.1	1369.1	1323.1	1263.5	1210.7	1175.0	1154.5	1149.4	1146.0
22.5°	1338.4	1319.7	1270.4	1207.4	1154.5	1122.2	1108.6	1101.8	1100.0
25°	1280.5	1261.8	1209.0	1144.4	1093.2	1066.0	1054.0	1054.0	1052.3
27.5°	1215.8	1192.0	1137.5	1081.4	1031.9	1011.5	1006.4	1006.4	1008.1
30°	1125.6	1108.6	1062.6	1008.1	962.1	948.5	948.5	951.9	951.9
32.5°	1028.5	1016.6	975.7	928.0	892.2	883.8	887.2	893.9	895.7
35°	936.5	923.0	895.7	853.1	825.9	822.5	827.6	832.6	832.6
37.5°	846.3	832.6	814.0	779.9	759.5	761.2	767.9	774.8	779.9
40°	757.8	747.5	734.0	706.6	691.4	698.2	706.6	713.5	720.3
42.5°	679.4	669.3	659.0	638.6	628.4	636.9	647.0	653.9	660.7
45°	608.0	601.1	590.9	573.9	567.1	575.6	587.5	594.3	601.1
47.5°	546.7	543.2	529.6	514.3	510.9	519.3	529.6	538.1	543.2
50°	490.4	485.4	473.4	458.0	454.6	468.3	475.1	480.2	485.4
52.5°	435.9	430.8	417.2	403.6	403.6	413.8	418.9	420.6	425.7
55°	388.3	383.2	369.5	359.2	355.9	364.4	367.8	367.8	371.2
57.5°	344.0	338.8	325.3	313.3	311.6	316.7	316.7	316.7	318.4
60°	301.4	296.2	282.7	272.4	269.0	270.7	269.0	267.3	269.0
62.5°	262.3	257.1	243.5	231.6	228.2	228.2	223.1	221.4	223.1
65°	226.5	218.0	207.7	195.9	189.0	183.9	177.1	177.1	177.1
67.5°	190.7	183.9	171.9	160.1	151.5	143.0	132.8	136.3	138.0
70°	158.4	153.2	139.7	127.7	115.8	105.6	97.1	100.5	102.2
72.5°	129.4	122.6	110.6	97.1	86.8	73.3	68.1	71.5	71.5
75°	100.5	93.7	83.4	69.8	57.9	46.0	46.0	47.6	47.6
77.5°	75.0	68.1	57.9	46.0	35.8	27.2	28.9	28.9	28.9
80°	51.0	46.0	37.5	27.2	18.7	15.4	15.4	15.4	17.0
82.5°	28.9	25.5	20.4	13.7	8.5	8.5	8.5	8.5	8.5
85°	13.7	10.2	8.5	5.1	3.4	3.4	3.4	3.4	3.4
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)