

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: P580177

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580177  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-9)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC425D010-HM40525840-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2537.7 lumens  
Efficiency: N/A  
Efficacy: 94.7 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

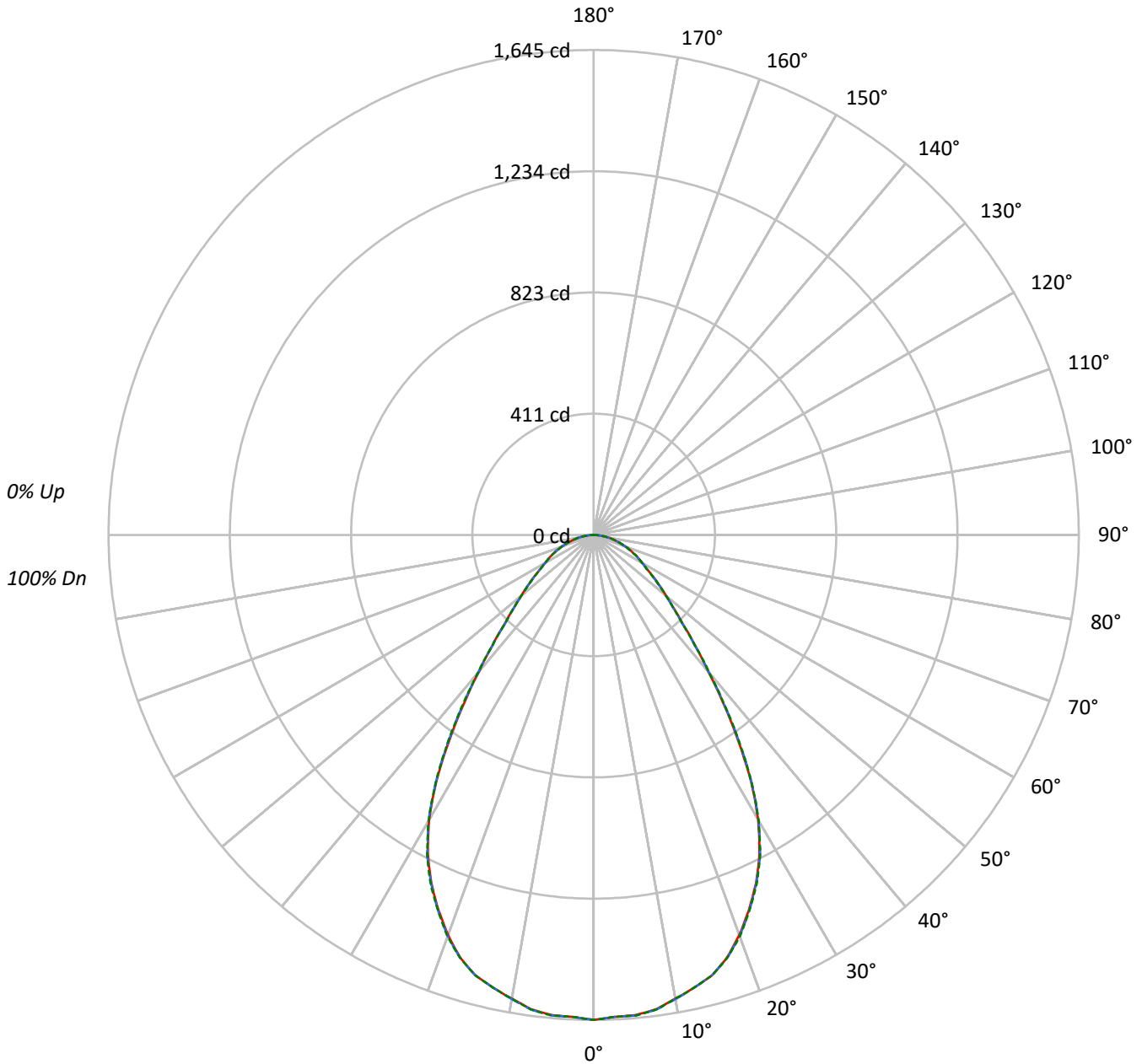
Input Watts (W): 26.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89		
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78		
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69		
4	90	80	72	67	87	78	72	66	76	70	66	74	69	65	72	68	64	62		
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56		
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51		
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46		
8	69	57	50	45	68	57	50	45	55	49	45	54	49	44	53	48	44	42		
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39		
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36		

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

	0°	45°	90°
0°	202879	202879	202879
5°	202403	202614	202614
10°	200047	200260	200047
15°	197636	197636	197636
20°	189529	189988	190211
25°	177280	177511	177974
30°	158849	159333	159333
35°	128969	129978	130249
40°	97334	97882	98139
45°	74554	74240	74240
50°	61425	61098	61098
55°	52729	52364	52364
60°	47044	46625	46625
65°	44217	44217	44217
70°	41113	41113	41113
75°	37363	38126	37363
80°	35019	33811	35019
85°	28871	28871	28871



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	155.0	6.1
10°-20°	433.7	17.1
20°-30°	595.9	23.5
30°-40°	535.8	21.1
40°-50°	338.6	13.3
50°-60°	221.0	8.7
60°-70°	149.7	5.9
70°-80°	84.3	3.3
80°-90°	23.7	0.9
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°	1184.6	46.7
0°-40°	1720.4	67.8
0°-60°	2280.0	89.8
0°-90°	2537.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2537.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1645	1645	1645	1645	1645	
5°	1635	1635	1636	1636	1636	155
15°	1548	1548	1548	1548	1548	433
25°	1303	1304	1304	1308	1308	594
35°	856	860	863	867	865	533
45°	427	426	426	426	426	339
55°	245	245	244	245	244	222
65°	152	152	152	152	152	150
75°	78	80	80	80	78	84
85°	20	20	20	20	20	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1644.8	1644.8	1644.8	1644.8	1644.8
2.5°	1636.4	1636.4	1636.4	1636.4	1636.4
5°	1634.7	1634.7	1636.4	1636.4	1636.4
7.5°	1622.7	1624.4	1624.4	1624.4	1624.4
10°	1597.2	1597.2	1598.9	1598.9	1597.2
12.5°	1573.4	1573.4	1573.4	1575.1	1573.4
15°	1547.7	1547.7	1547.7	1547.7	1547.7
17.5°	1503.5	1505.2	1505.2	1505.2	1505.2
20°	1443.9	1447.4	1447.4	1449.1	1449.1
22.5°	1375.8	1377.5	1379.2	1380.9	1379.2
25°	1302.6	1304.3	1304.3	1307.7	1307.7
27.5°	1217.4	1219.2	1222.6	1222.6	1222.6
30°	1115.3	1117.0	1118.7	1118.7	1118.7
32.5°	994.4	994.4	997.8	999.5	997.8
35°	856.5	859.8	863.2	866.7	865.0
37.5°	725.4	728.8	730.5	730.5	732.2
40°	604.5	607.9	607.9	611.2	609.5
42.5°	509.1	507.4	507.4	510.9	509.1
45°	427.4	425.6	425.6	425.6	425.6
47.5°	367.8	366.1	366.1	366.1	366.1
50°	320.1	318.4	318.4	318.4	318.4
52.5°	280.9	279.2	279.2	279.2	277.5
55°	245.2	245.2	243.5	245.2	243.5
57.5°	212.8	212.8	212.8	212.8	212.8
60°	190.7	189.0	189.0	189.0	189.0
62.5°	170.3	170.3	170.3	170.3	170.3
65°	151.5	151.5	151.5	151.5	151.5
67.5°	132.8	131.1	132.8	132.8	131.1
70°	114.0	112.3	114.0	114.0	114.0
72.5°	95.4	95.4	95.4	97.1	95.4
75°	78.4	80.0	80.0	80.0	78.4
77.5°	63.0	64.7	63.0	63.0	63.0
80°	49.3	47.6	47.6	47.6	49.3
82.5°	34.1	34.1	34.1	34.1	34.1
85°	20.4	20.4	20.4	20.4	20.4
87.5°	8.5	8.5	8.5	8.5	8.5
90°	0.0	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)