

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: P579886

Luminaire Tested: **HC415D010-HM40525840-41WDH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579886  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-8)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC415D010-HM40525840-41WDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1638.3 lumens  
Efficiency: N/A  
Efficacy: 117.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.11  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

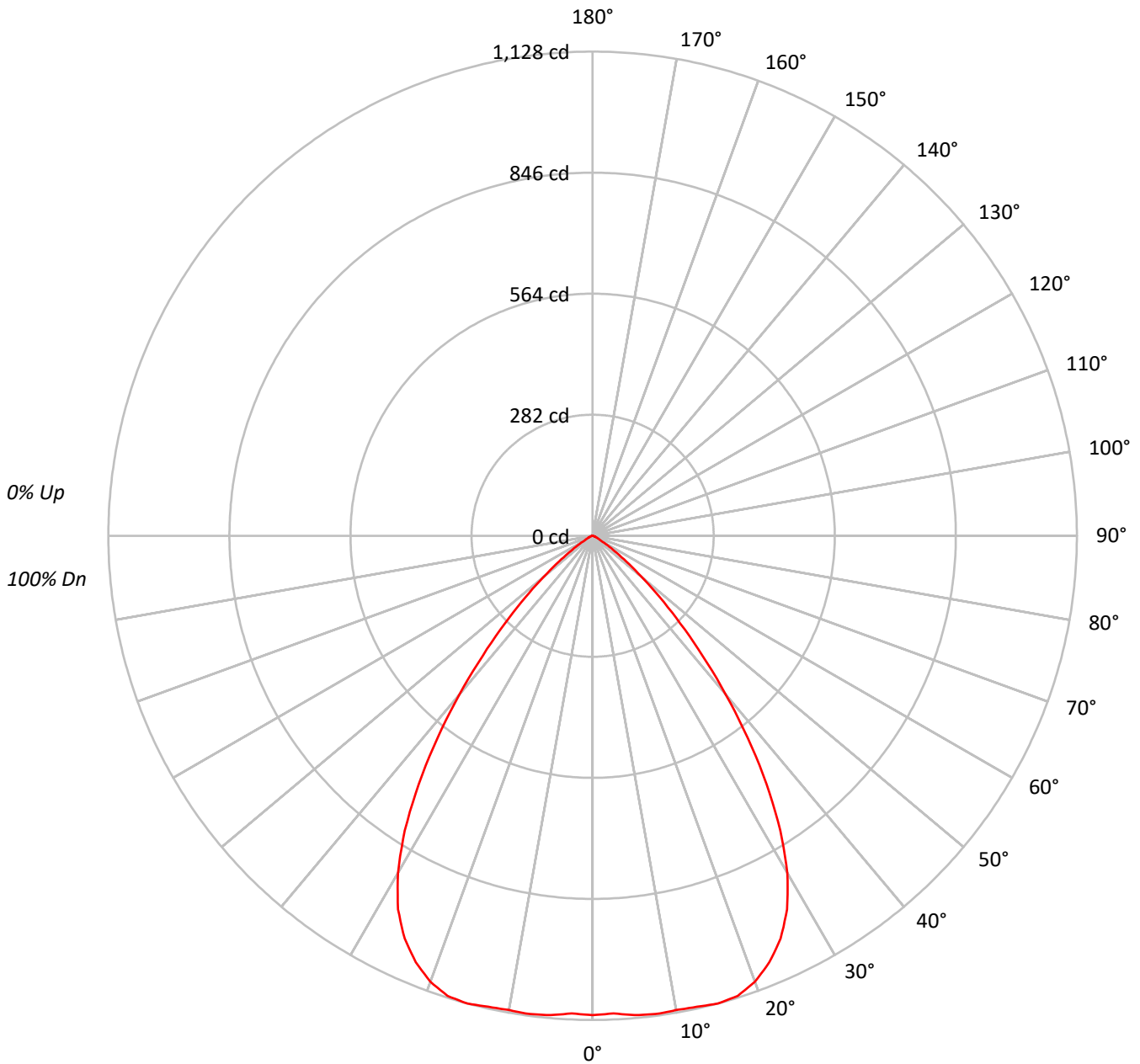
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	113	110	107	104	110	108	105	103	103	101	100	100	98	97	96	95	94	92			92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	88	86	84			84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	81	78	76			76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69			69
5	88	79	72	67	86	78	72	67	76	70	66	74	69	66	72	68	65	63			63
6	83	73	66	61	81	72	66	61	70	65	61	69	64	60	68	63	60	58			58
7	78	68	61	56	77	67	60	56	65	60	55	64	59	55	63	58	55	53			53
8	74	63	56	51	72	62	56	51	61	55	51	60	55	51	59	54	51	49			49
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45			45
10	66	55	48	44	65	54	48	44	53	48	44	53	47	44	52	47	43	42			42

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

	0°
0°	137752
5°	138786
10°	140516
15°	144042
20°	145097
25°	140955
30°	129224
35°	106338
40°	77513
45°	50325
50°	28362
55°	13462
60°	5329
65°	3298
70°	2200
75°	1477
80°	710
85°	1415



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.0	6.5
10°-20°	318.0	19.4
20°-30°	471.7	28.8
30°-40°	435.7	26.6
40°-50°	227.5	13.9
50°-60°	62.4	3.8
60°-70°	12.0	0.7
70°-80°	3.4	0.2
80°-90°	0.7	0.0
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°	896.7	54.7
0°-40°	1332.4	81.3
0°-60°	1622.3	99.0
0°-90°	1638.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1638.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1117	
5°	1121	107
15°	1128	318
25°	1036	472
35°	706	436
45°	288	228
55°	63	62
65°	11	12
75°	3	3
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1116.8
2.5°	1113.7
5°	1120.9
7.5°	1123.9
10°	1121.9
12.5°	1123.9
15°	1128.0
17.5°	1123.9
20°	1105.4
22.5°	1075.7
25°	1035.7
27.5°	981.2
30°	907.3
32.5°	814.0
35°	706.2
37.5°	593.3
40°	481.4
42.5°	378.7
45°	288.5
47.5°	211.5
50°	147.8
52.5°	98.6
55°	62.6
57.5°	37.0
60°	21.6
62.5°	15.3
65°	11.3
67.5°	8.2
70°	6.1
72.5°	4.1
75°	3.1
77.5°	2.0
80°	1.0
82.5°	1.0
85°	1.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)