

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: P583851

Luminaire Tested: **HC815D010-HM80520830-81NDC**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583851  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC815D010-HM80520830-81NDC  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1579.0 lumens  
Efficiency: N/A  
Efficacy: 112.8 lumens/watt  
Spacing Criteria (0/90/45): 0.22 / 0.22 / 0.27  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

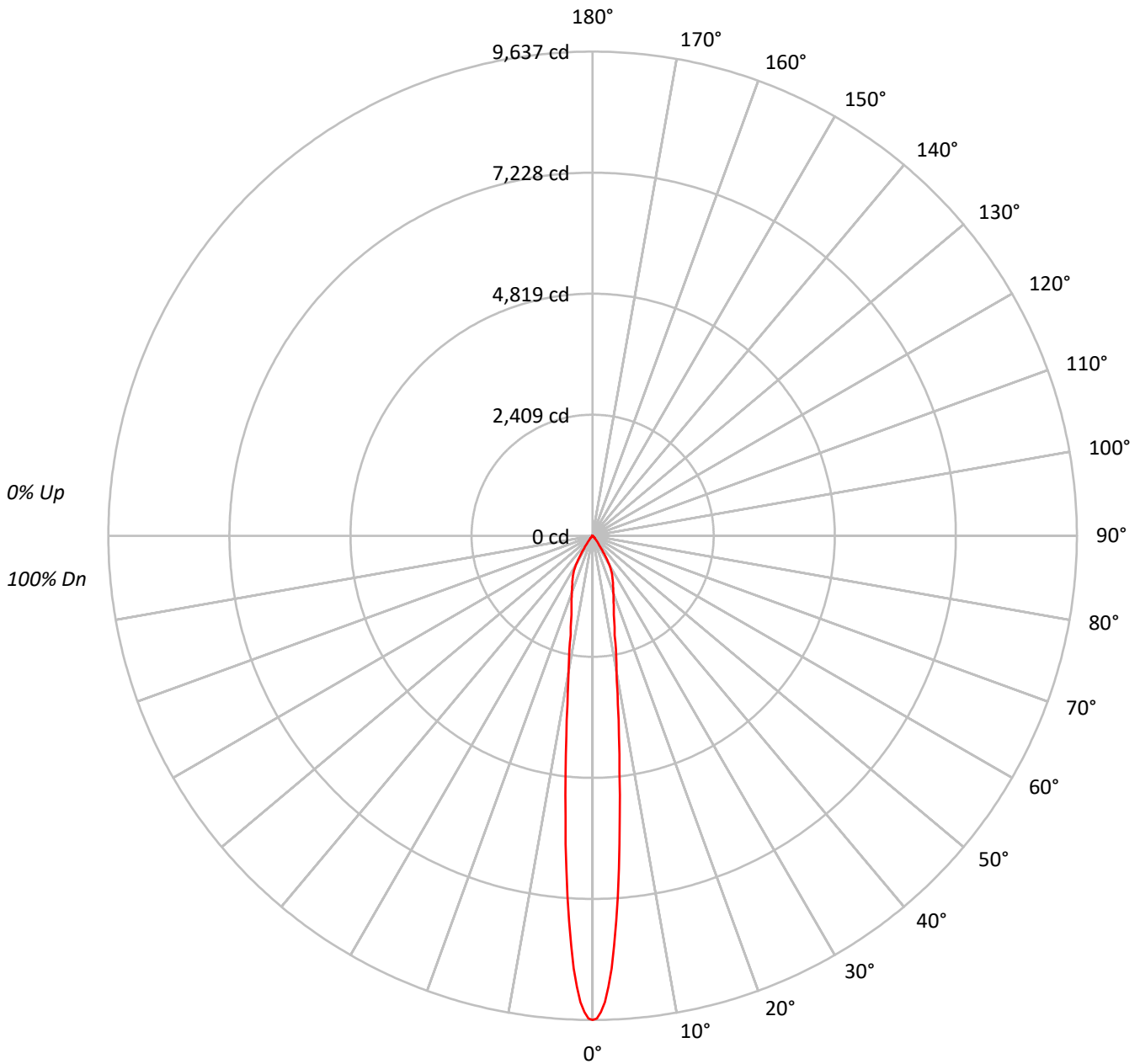
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	100
1	115	112	110	108	112	110	108	106	106	105	103	102	101	100	99	98	97	96	96	96	96
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91	91	91	91
3	106	101	97	93	104	99	96	93	97	94	91	95	92	90	92	90	89	87	87	87	87
4	102	96	91	88	100	95	91	88	93	89	87	91	88	86	89	87	85	83	83	83	83
5	98	92	87	83	97	91	86	83	89	85	82	87	84	82	86	83	81	80	80	80	80
6	95	88	83	79	93	87	82	79	86	82	79	84	81	78	83	80	78	76	76	76	76
7	91	84	79	76	90	83	79	76	82	78	75	81	78	75	80	77	75	73	73	73	73
8	88	81	76	73	87	80	76	73	79	75	72	78	75	72	77	74	72	71	71	71	71
9	85	78	73	70	84	77	73	70	76	72	70	76	72	69	75	72	69	68	68	68	68
10	83	75	70	67	82	75	70	67	74	70	67	73	69	67	73	69	67	66	66	66	66

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

	0°
0°	297176
5°	190615
10°	86105
15°	51956
20°	39595
25°	31972
30°	23433
35°	8481
40°	3168
45°	1435
50°	456
55°	118
60°	68
65°	80
70°	0
75°	0
80°	195
85°	389



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	469.7	29.7
10°-20°	477.0	30.2
20°-30°	427.0	27.0
30°-40°	172.0	10.9
40°-50°	28.2	1.8
50°-60°	2.6	0.2
60°-70°	1.0	0.1
70°-80°	0.7	0.0
80°-90°	1.0	0.1
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°	1373.7	87.0
0°-40°	1545.8	97.9
0°-60°	1576.5	99.8
0°-90°	1579.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1579.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	9637	
5°	6158	470
15°	1628	477
25°	940	427
35°	225	172
45°	33	28
55°	2	3
65°	1	1
75°	0	1
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	9637.2
0.5°	9607.5
1°	9483.1
1.5°	9283.2
2°	8980.3
2.5°	8622.0
3°	8173.4
3.5°	7681.3
4°	7194.5
4.5°	6649.1
5°	6158.0
5.5°	5623.3
6°	5189.6
6.5°	4737.8
7°	4382.7
7.5°	4007.5
8°	3705.6
8.5°	3402.7
9°	3175.2
9.5°	2924.3
10°	2749.9
12.5°	2028.3
15°	1627.5
17.5°	1390.4
20°	1206.6
22.5°	1059.8
25°	939.7
27.5°	819.5
30°	658.1
32.5°	423.1
35°	225.3
37.5°	124.4
40°	78.7
42.5°	52.1
45°	32.9
47.5°	20.2
50°	9.5
52.5°	3.1
55°	2.2
57.5°	1.1
60°	1.1
62.5°	1.1
65°	1.1



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**CANDELA DISTRIBUTION (continued):**

	0°
72.5°	0.0
75°	0.0
77.5°	1.1
80°	1.1
82.5°	1.1
85°	1.1
87.5°	1.1
90°	0.0



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— 0°-180°







67.5°		1.1
70°		0.0



(END OF REPORT)