

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: P583699

Luminaire Tested: **HC810D010-HM80520827-81NDH**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583699  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC810D010-HM80520827-81NDH  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1054.5 lumens  
Efficiency: N/A  
Efficacy: 106.5 lumens/watt  
Spacing Criteria (0/90/45): 0.42 / 0.42 / 0.57  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

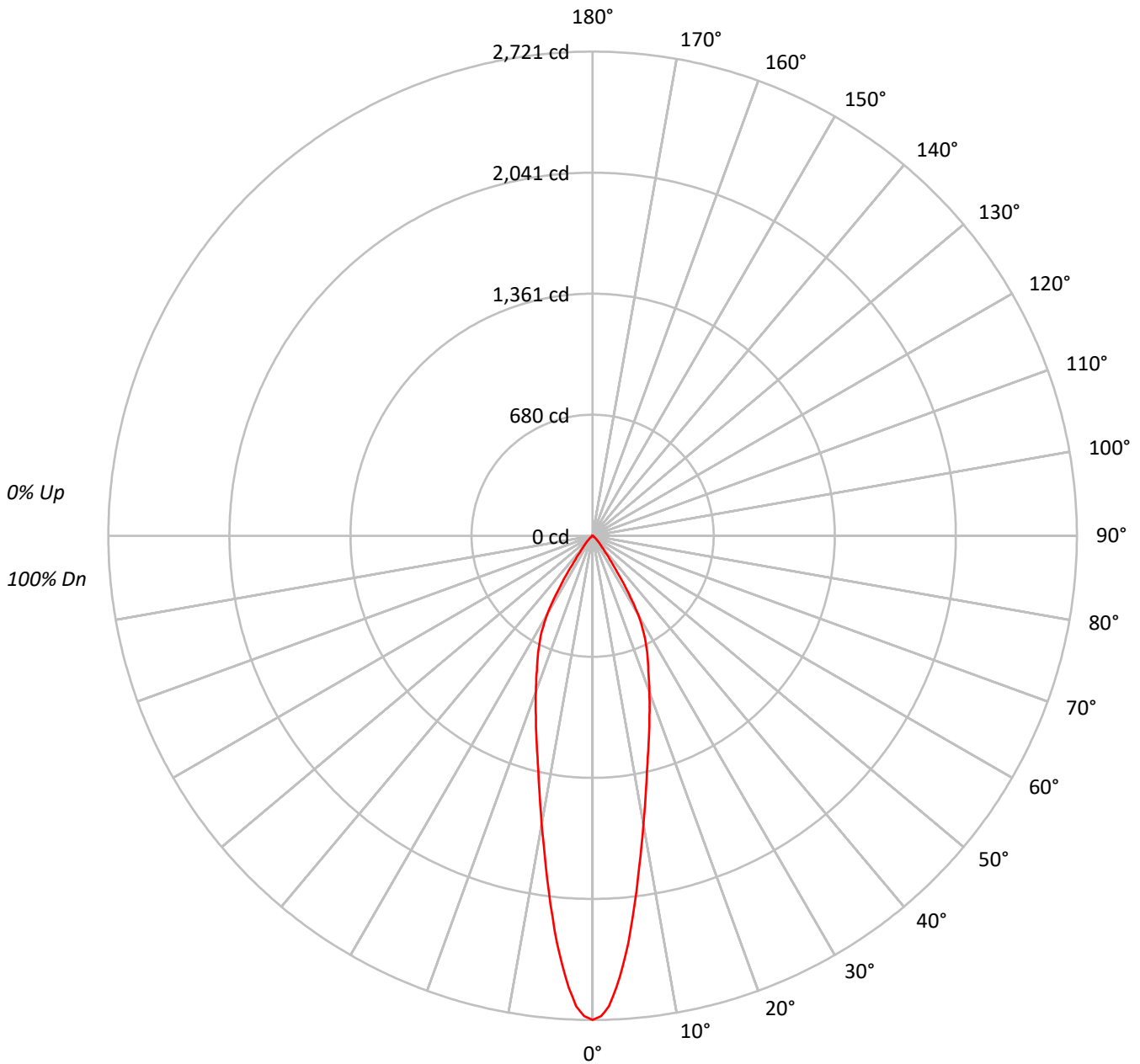
Input Watts (W): 9.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			
1	114	112	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	95			
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89			
3	104	99	94	91	102	97	93	90	95	91	88	92	90	87	90	88	86	84			
4	100	93	88	84	98	92	87	84	90	86	83	88	85	82	86	83	81	80			
5	96	88	83	79	94	87	82	79	86	81	78	84	80	77	82	79	77	75			
6	92	84	78	75	90	83	78	74	81	77	74	80	76	73	79	76	73	72			
7	88	80	74	70	87	79	74	70	78	73	70	77	73	70	76	72	69	68			
8	84	76	70	67	83	75	70	67	74	70	66	73	69	66	72	69	66	65			
9	81	72	67	64	80	72	67	63	71	66	63	70	66	63	69	66	63	62			
10	78	69	64	61	77	69	64	61	68	63	60	67	63	60	67	63	60	59			

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

	0°
0°	83899
5°	71083
10°	51574
15°	38730
20°	30558
25°	24647
30°	18266
35°	7397
40°	3120
45°	1670
50°	748
55°	382
60°	247
65°	175
70°	144
75°	95
80°	142
85°	283



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	197.2	18.7
10°-20°	340.7	32.3
20°-30°	329.4	31.2
30°-40°	144.7	13.7
40°-50°	31.3	3.0
50°-60°	7.0	0.7
60°-70°	2.4	0.2
70°-80°	1.0	0.1
80°-90°	0.8	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°	867.3	82.3
0°-40°	1012.0	96.0
0°-60°	1050.3	99.6
0°-90°	1054.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1054.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2721	
5°	2296	197
15°	1213	341
25°	724	329
35°	196	145
45°	38	31
55°	7	7
65°	2	2
75°	1	1
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2720.8
1°	2700.5
2°	2644.9
3°	2544.6
4°	2424.8
5°	2296.4
6°	2156.1
7°	2015.2
8°	1882.8
9°	1759.8
10°	1647.1
11°	1540.6
12°	1445.0
13°	1358.1
14°	1281.3
15°	1213.2
17.5°	1060.5
20°	931.2
22.5°	817.7
25°	724.4
27.5°	629.7
30°	513.0
32.5°	348.6
35°	196.5
37.5°	115.9
40°	77.5
42.5°	54.8
45°	38.3
47.5°	25.1
50°	15.6
52.5°	9.4
55°	7.1
57.5°	5.5
60°	4.0
62.5°	3.1
65°	2.4
67.5°	1.6
70°	1.6
72.5°	0.8
75°	0.8
77.5°	0.8
80°	0.8
82.5°	0.8



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**CANDELA DISTRIBUTION (continued):**

0°  
90° | 0.0



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— 0°-180°







85°		0.8
87.5°		0.8



(END OF REPORT)