

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: P584084

Luminaire Tested: **HC820D010-HM80520940-81MDW**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584084  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC820D010-HM80520940-81MDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" MEDIUM DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2108.1 lumens  
Efficiency: N/A  
Efficacy: 105.4 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1 / 0.95  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

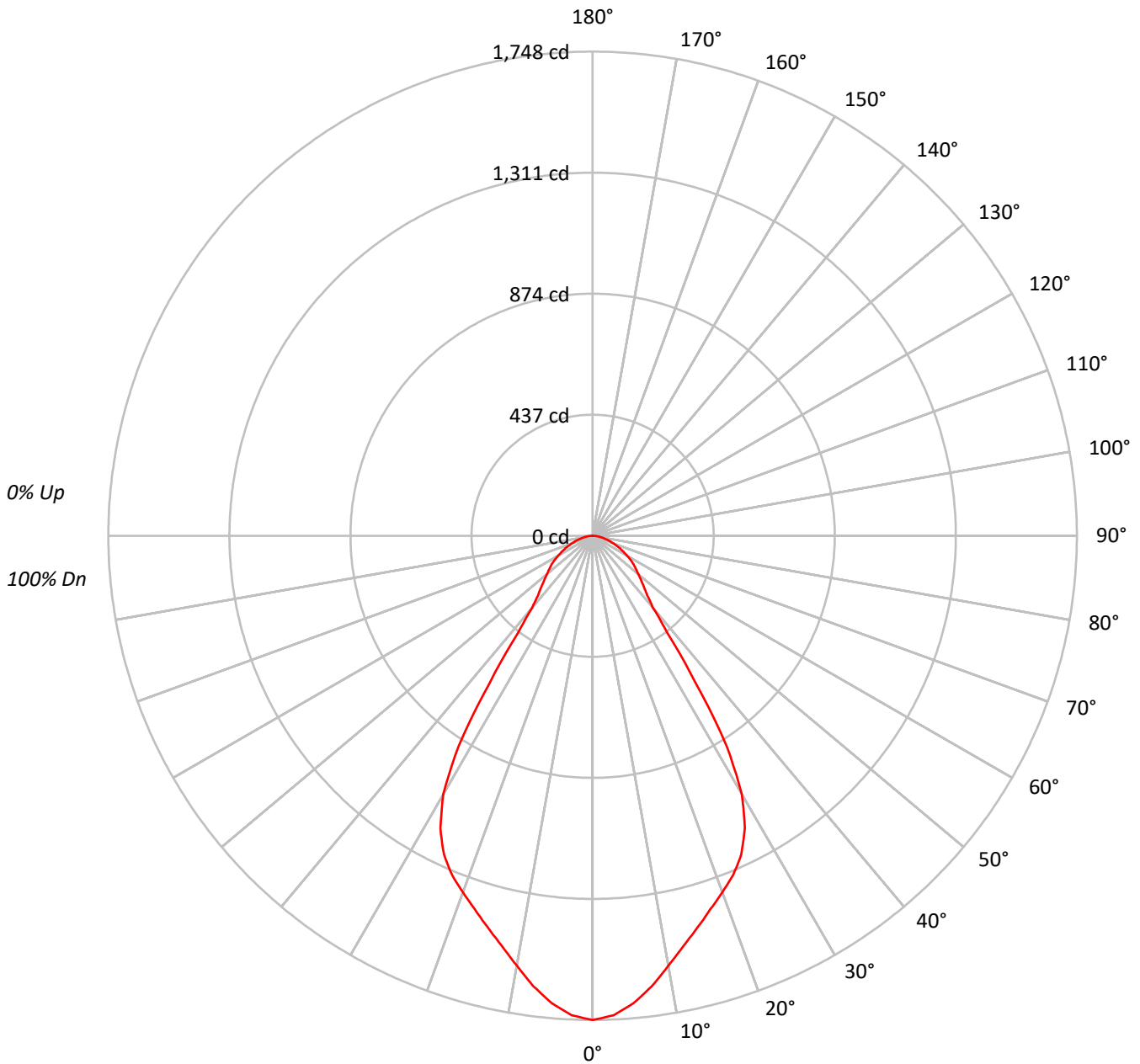
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80			
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72			
4	91	82	75	70	89	81	74	69	78	73	69	76	72	68	74	70	67	65			
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59			
6	81	70	63	58	79	69	62	57	67	61	57	66	61	56	64	60	56	54			
7	76	65	58	53	74	64	57	53	63	57	52	62	56	52	60	55	52	50			
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46			
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43			
10	64	53	46	42	63	53	46	42	52	46	42	51	46	42	50	45	42	40			

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

	0°
0°	53905
5°	52436
10°	49341
15°	46718
20°	44941
25°	43204
30°	38370
35°	24439
40°	13638
45°	11421
50°	10314
55°	9720
60°	8862
65°	7997
70°	7050
75°	6279
80°	5558
85°	5024



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	157.9	7.5
10°-20°	412.7	19.6
20°-30°	575.7	27.3
30°-40°	414.3	19.7
40°-50°	205.3	9.7
50°-60°	160.6	7.6
60°-70°	108.7	5.2
70°-80°	56.5	2.7
80°-90°	16.3	0.8
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°	1146.4	54.4
0°-40°	1560.7	74.0
0°-60°	1926.6	91.4
0°-90°	2108.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2108.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1748	
5°	1694	158
15°	1463	413
25°	1270	576
35°	649	414
45°	262	205
55°	181	161
65°	110	109
75°	53	56
85°	14	16
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1748.1
2.5°	1732.5
5°	1694.0
7.5°	1639.9
10°	1575.8
12.5°	1516.0
15°	1463.4
17.5°	1413.6
20°	1369.5
22.5°	1325.3
25°	1269.8
27.5°	1190.0
30°	1077.6
32.5°	901.0
35°	649.2
37.5°	442.8
40°	338.8
42.5°	291.8
45°	261.9
47.5°	236.3
50°	215.0
52.5°	196.4
55°	180.8
57.5°	162.3
60°	143.7
62.5°	125.3
65°	109.6
67.5°	94.0
70°	78.2
72.5°	65.5
75°	52.7
77.5°	41.3
80°	31.3
82.5°	22.8
85°	14.2
87.5°	7.1
90°	0.0



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— 0°-180°







(END OF REPORT)