

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: P584093

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

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584093  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-8)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC820D010-HM80520940-81WDH  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2264.8 lumens  
Efficiency: N/A  
Efficacy: 113.2 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.06  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

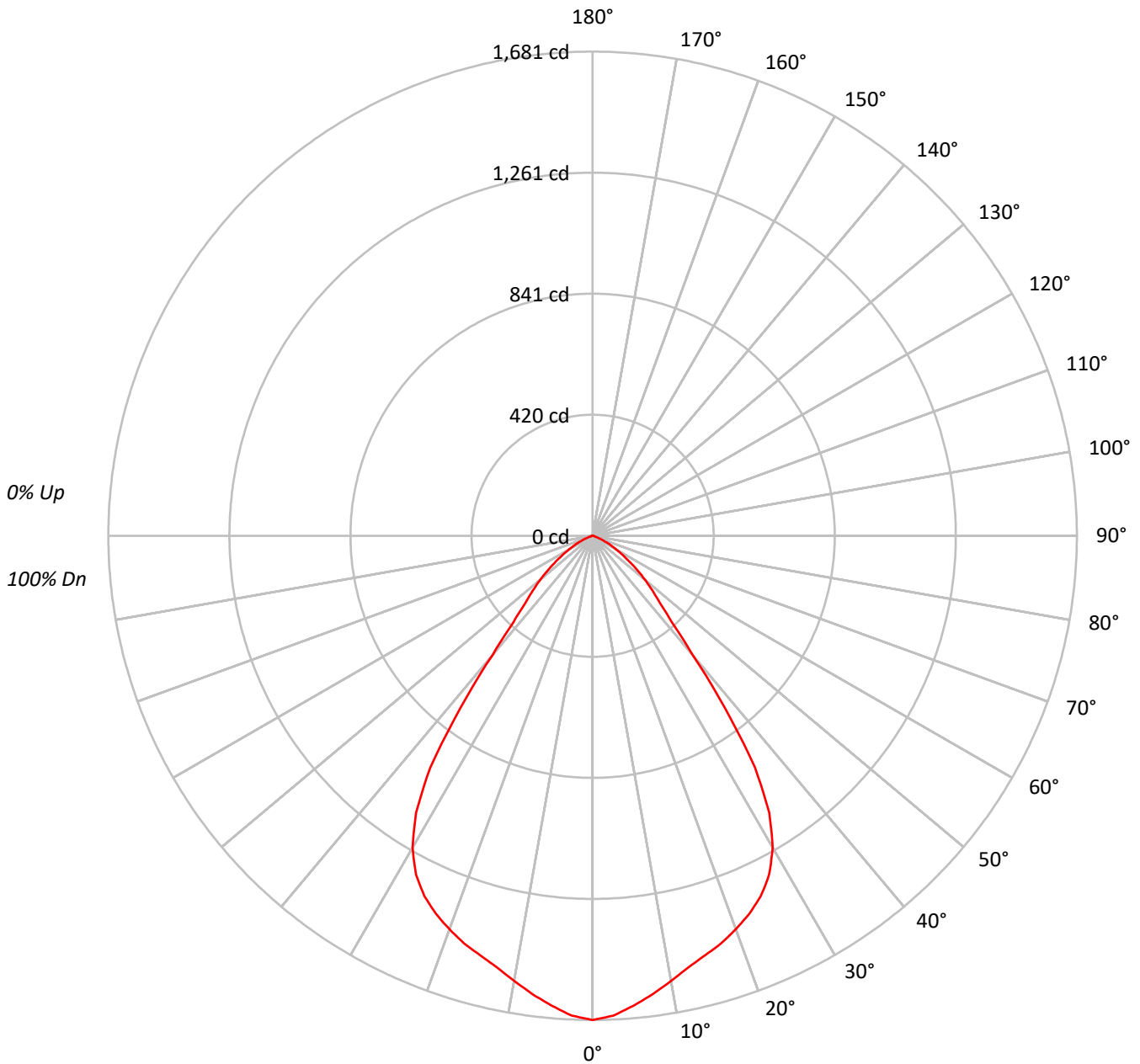
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	113	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	93	92			
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	85	83			
3	99	92	86	81	97	90	85	81	88	83	79	85	81	78	83	80	77	75			
4	93	84	78	73	91	83	77	72	81	76	72	79	74	71	77	73	70	68			
5	87	78	71	66	86	77	70	66	75	69	65	73	68	64	71	67	64	62			
6	82	72	65	60	80	71	64	60	69	64	59	68	63	59	66	62	58	57			
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52			
8	73	62	55	50	71	61	55	50	60	54	50	59	54	50	58	53	49	48			
9	69	58	51	46	67	57	51	46	56	50	46	55	50	46	54	49	46	44			
10	65	54	47	43	64	53	47	43	53	47	43	52	46	43	51	46	42	41			

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

	0°
0°	51848
5°	50681
10°	49125
15°	48135
20°	47700
25°	46987
30°	44508
35°	36982
40°	21777
45°	14404
50°	11336
55°	8344
60°	5797
65°	3539
70°	1542
75°	679
80°	497
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	154.2	6.8
10°-20°	426.3	18.8
20°-30°	631.5	27.9
30°-40°	583.6	25.8
40°-50°	269.1	11.9
50°-60°	141.5	6.2
60°-70°	50.1	2.2
70°-80°	7.8	0.3
80°-90°	0.8	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°	1212.0	53.5
0°-40°	1795.5	79.3
0°-60°	2206.1	97.4
0°-90°	2264.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2264.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1681	
5°	1637	154
15°	1508	426
25°	1381	632
35°	982	584
45°	330	269
55°	155	142
65°	48	50
75°	6	8
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1681.4
2.5°	1667.2
5°	1637.3
7.5°	1604.6
10°	1568.9
12.5°	1534.7
15°	1507.8
17.5°	1483.5
20°	1453.6
22.5°	1420.9
25°	1381.0
27.5°	1326.9
30°	1250.0
32.5°	1140.4
35°	982.4
37.5°	754.6
40°	541.0
42.5°	405.8
45°	330.3
47.5°	280.5
50°	236.3
52.5°	193.6
55°	155.2
57.5°	122.5
60°	94.0
62.5°	71.2
65°	48.5
67.5°	28.5
70°	17.1
72.5°	9.9
75°	5.7
77.5°	4.3
80°	2.8
82.5°	1.4
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)