

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: P584027

Luminaire Tested: **HC820D010-HM80520840-81WDWB**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584027  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-10)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC820D010-HM80520840-81WDWB  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2665.4 lumens  
Efficiency: N/A  
Efficacy: 133.3 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.32 / 1.14  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

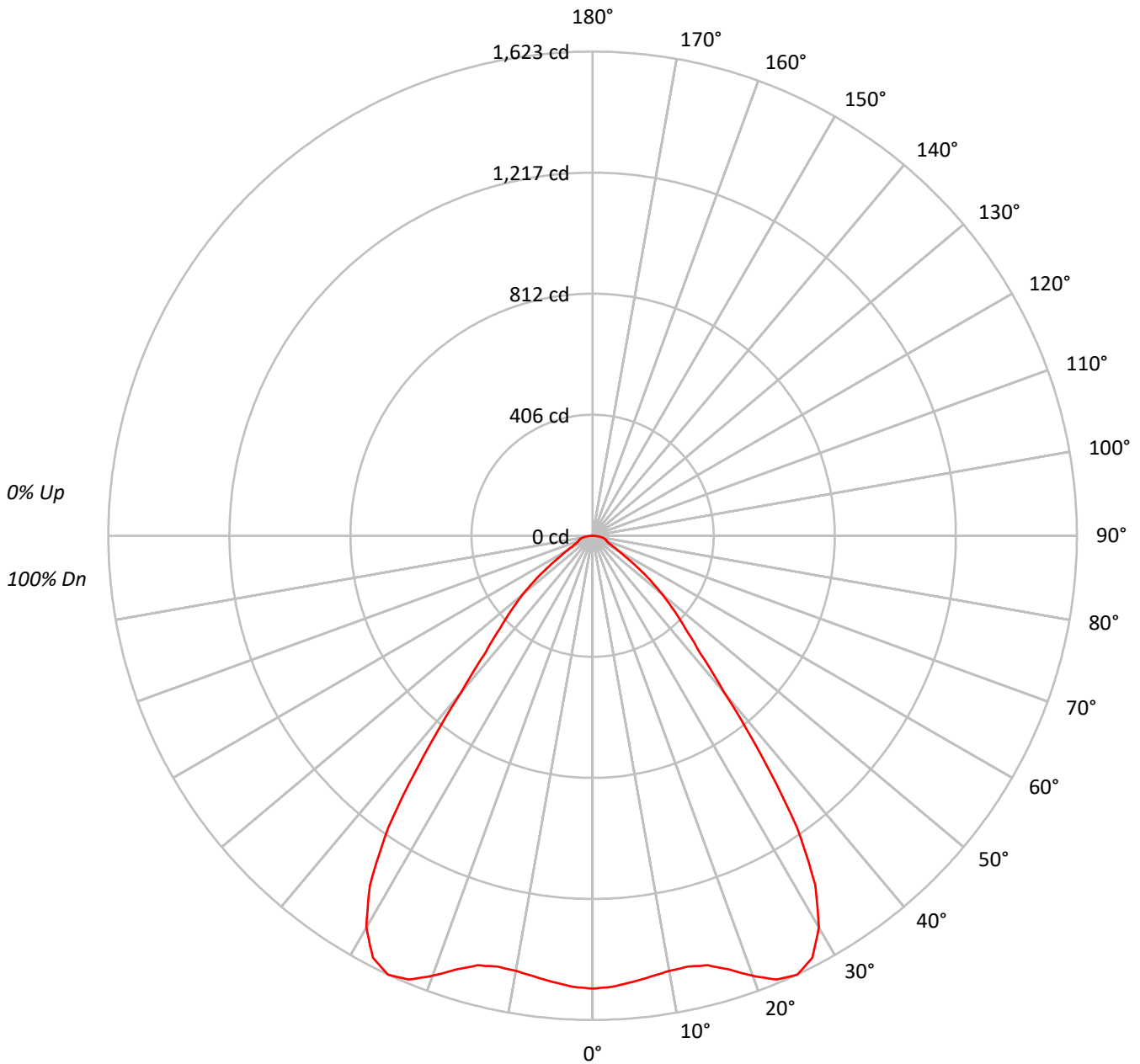
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	109	106	103	101	102	100	98	98	97	95	95	93	92	90			
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	88	85	83	81			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73			
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65			
5	86	75	68	63	84	74	68	63	73	67	62	71	66	62	69	65	61	59			
6	80	69	62	57	79	69	62	57	67	61	56	65	60	56	64	59	56	54			
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	55	51	49			
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45			
9	67	55	48	43	65	55	48	43	54	47	43	53	47	43	52	47	43	41			
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38			

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

	0°
0°	46810
5°	46487
10°	46367
15°	47583
20°	51513
25°	55228
30°	53994
35°	44962
40°	27622
45°	19127
50°	14593
55°	9570
60°	5995
65°	4487
70°	4517
75°	5207
80°	5754
85°	5130



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.7	5.4
10°-20°	427.9	16.1
20°-30°	736.6	27.6
30°-40°	713.7	26.8
40°-50°	351.5	13.2
50°-60°	165.9	6.2
60°-70°	65.4	2.5
70°-80°	45.1	1.7
80°-90°	16.7	0.6
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°	1307.2	49.0
0°-40°	2020.8	75.8
0°-60°	2538.2	95.2
0°-90°	2665.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2665.4	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1518	
5°	1502	143
15°	1490	428
25°	1623	737
35°	1194	714
45°	439	352
55°	178	166
65°	62	65
75°	44	45
85°	14	17
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1518.0
2.5°	1513.2
5°	1501.8
7.5°	1490.5
10°	1480.8
12.5°	1479.2
15°	1490.5
17.5°	1524.5
20°	1569.8
22.5°	1610.2
25°	1623.2
27.5°	1594.2
30°	1516.4
32.5°	1388.6
35°	1194.4
37.5°	927.3
40°	686.2
42.5°	532.5
45°	438.6
47.5°	369.0
50°	304.2
52.5°	239.5
55°	178.0
57.5°	129.4
60°	97.2
62.5°	76.1
65°	61.5
67.5°	53.4
70°	50.1
72.5°	46.9
75°	43.7
77.5°	38.9
80°	32.4
82.5°	24.2
85°	14.5
87.5°	6.5
90°	0.0



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— 0°-180°







(END OF REPORT)