

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: P584057

Luminaire Tested: **HC820D010-HM80520930-81WDBB**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584057  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-11)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC820D010-HM80520930-81WDBB  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1960.9 lumens  
Efficiency: N/A  
Efficacy: 98.0 lumens/watt  
Spacing Criteria (0/90/45): 1.32 / 1.32 / 1.13  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

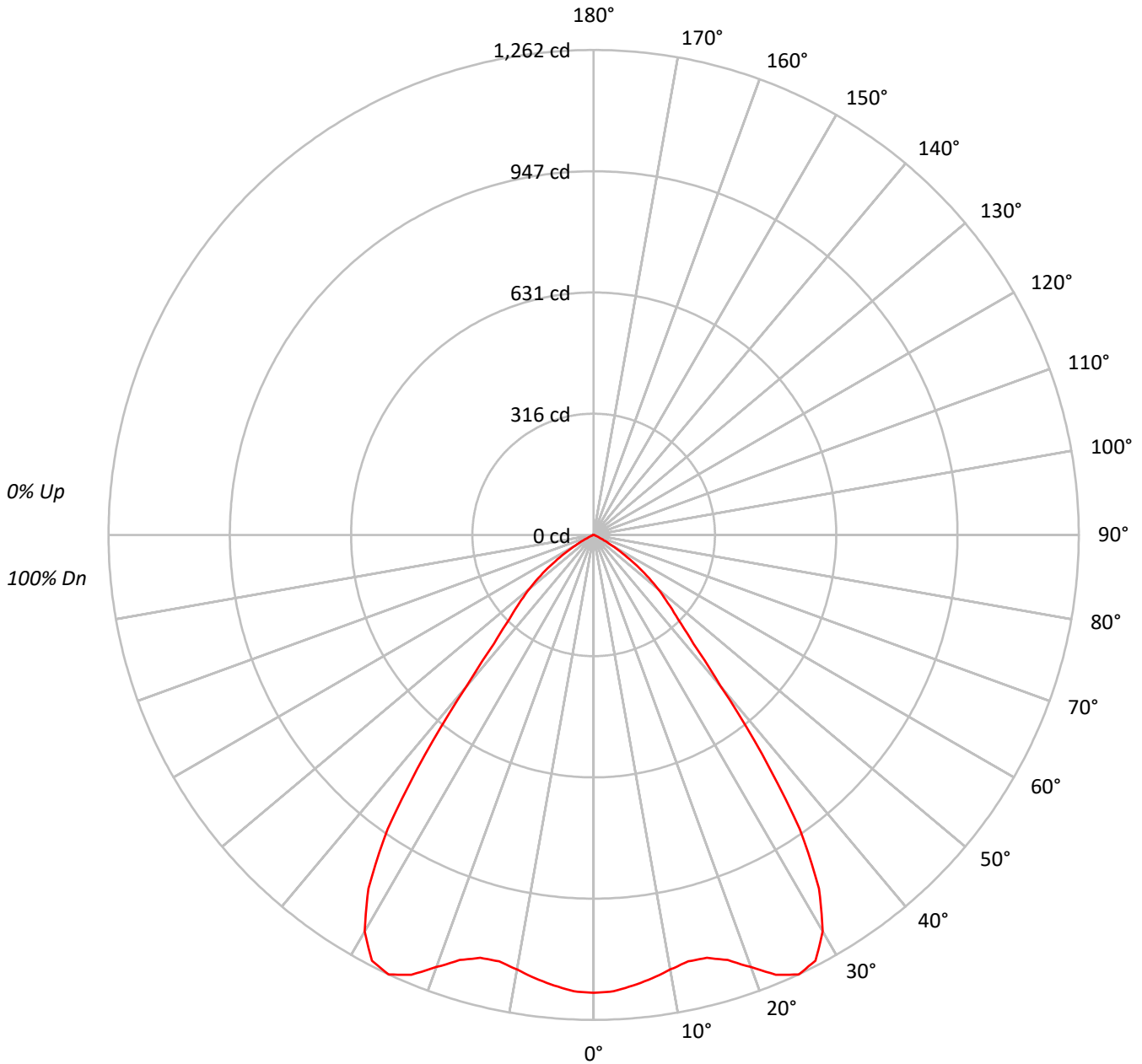
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	113	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	93	92			
2	106	100	95	92	104	98	94	91	95	92	89	92	89	87	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	71	79	74	71	77	73	70	68			
5	87	77	71	66	85	76	70	65	74	69	65	73	68	64	71	67	63	62			
6	82	71	64	59	80	70	64	59	69	63	59	67	62	58	66	61	58	56			
7	77	66	59	54	75	65	59	54	64	58	54	63	57	53	61	57	53	51			
8	72	61	54	49	71	61	54	49	59	53	49	58	53	49	57	52	49	47			
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	45	42	50	45	41	40			

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

	0°
0°	36741
5°	36433
10°	35956
15°	36365
20°	39273
25°	42942
30°	42425
35°	35190
40°	20711
45°	13532
50°	10492
55°	6973
60°	3392
65°	1051
70°	352
75°	310
80°	231
85°	460



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.5	5.7
10°-20°	327.3	16.7
20°-30°	572.2	29.2
30°-40°	556.6	28.4
40°-50°	253.1	12.9
50°-60°	117.4	6.0
60°-70°	19.6	1.0
70°-80°	2.4	0.1
80°-90°	0.9	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°	1010.9	51.6
0°-40°	1567.5	79.9
0°-60°	1937.9	98.8
0°-90°	1960.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1960.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1192	
5°	1177	111
15°	1139	327
25°	1262	572
35°	935	557
45°	310	253
55°	130	117
65°	14	20
75°	3	2
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1191.5
2.5°	1188.9
5°	1177.0
7.5°	1164.0
10°	1148.3
12.5°	1136.5
15°	1139.1
17.5°	1160.0
20°	1196.8
22.5°	1238.6
25°	1262.1
27.5°	1249.1
30°	1191.5
32.5°	1090.6
35°	934.8
37.5°	720.1
40°	514.5
42.5°	383.7
45°	310.3
47.5°	261.8
50°	218.7
52.5°	174.1
55°	129.7
57.5°	89.0
60°	55.0
62.5°	30.1
65°	14.4
67.5°	6.5
70°	3.9
72.5°	2.6
75°	2.6
77.5°	1.3
80°	1.3
82.5°	1.3
85°	1.3
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)