

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: P593658

Luminaire Tested: **HC830D010-HM82555850-81NDC**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593658  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC830D010-HM82555850-81NDC  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3699.0 lumens  
Efficiency: N/A  
Efficacy: 132.1 lumens/watt  
Spacing Criteria (0/90/45): 0.22 / 0.22 / 0.27  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

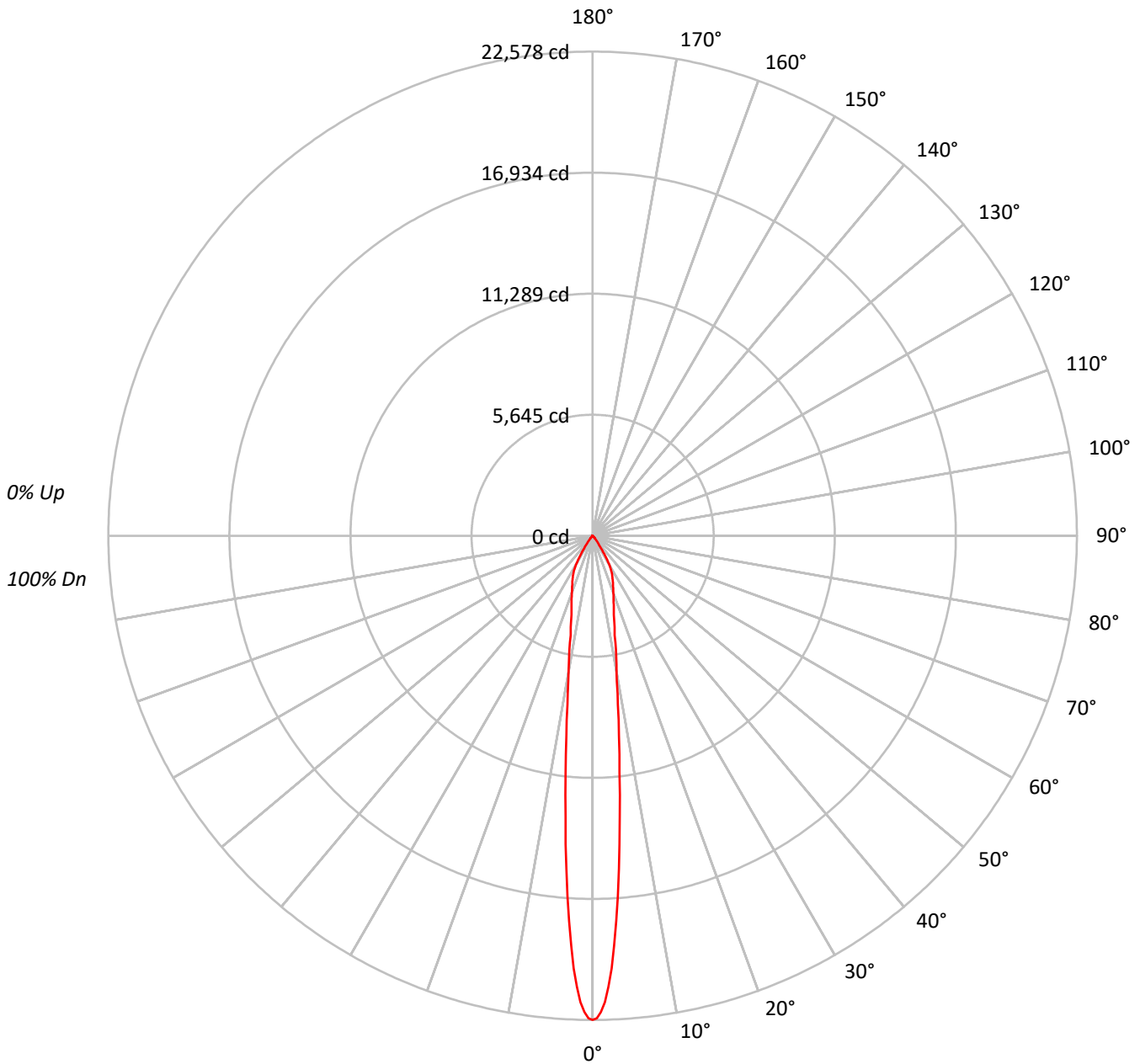
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	115	112	110	108	112	110	108	107	106	105	103	102	101	100	99	98	97	96		
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91		
3	106	101	97	93	104	99	96	93	97	94	91	95	92	90	92	90	89	87		
4	102	96	91	88	100	95	91	88	93	89	87	91	88	86	89	87	85	83		
5	98	92	87	83	97	91	86	83	89	85	82	87	84	82	86	83	81	80		
6	95	88	83	79	93	87	82	79	86	82	79	84	81	78	83	80	78	76		
7	91	84	79	76	90	83	79	76	82	78	75	81	78	75	80	77	75	73		
8	88	81	76	73	87	80	76	73	79	75	72	78	75	72	77	74	72	71		
9	85	78	73	70	84	77	73	70	76	72	70	76	72	69	75	72	69	68		
10	83	75	70	67	82	75	70	67	74	70	67	73	69	67	73	69	67	66		

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

	0°
0°	696216
5°	446566
10°	201731
15°	121720
20°	92756
25°	74907
30°	54888
35°	19872
40°	7419
45°	3367
50°	1079
55°	269
60°	154
65°	182
70°	0
75°	0
80°	444
85°	885



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1100.3	29.7
10°-20°	1117.6	30.2
20°-30°	1000.5	27.0
30°-40°	403.0	10.9
40°-50°	66.1	1.8
50°-60°	6.0	0.2
60°-70°	2.2	0.1
70°-80°	1.7	0.0
80°-90°	2.4	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°	3218.3	87.0
0°-40°	3621.3	97.9
0°-60°	3693.4	99.8
0°-90°	3699.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3699.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	22578	
5°	14427	###
15°	3813	1118
25°	2202	1000
35°	528	403
45°	77	66
55°	5	6
65°	2	2
75°	0	2
85°	2	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	22577.8
0.5°	22508.0
1°	22216.7
1.5°	21748.5
2°	21038.8
2.5°	20199.4
3°	19148.5
3.5°	17995.5
4°	16854.9
4.5°	15577.3
5°	14426.7
5.5°	13174.1
6°	12158.0
6.5°	11099.7
7°	10267.8
7.5°	9388.7
8°	8681.5
8.5°	7971.7
9°	7438.7
9.5°	6851.0
10°	6442.6
12.5°	4751.6
15°	3812.8
17.5°	3257.4
20°	2826.6
22.5°	2482.9
25°	2201.6
27.5°	1920.1
30°	1541.5
32.5°	991.2
35°	527.9
37.5°	291.4
40°	184.3
42.5°	122.0
45°	77.2
47.5°	47.3
50°	22.5
52.5°	7.5
55°	5.0
57.5°	2.5
60°	2.5
62.5°	2.5
65°	2.5



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**CANDELA DISTRIBUTION (continued):**

	0°
72.5°	0.0
75°	0.0
77.5°	2.5
80°	2.5
82.5°	2.5
85°	2.5
87.5°	2.5
90°	0.0



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— 0°-180°







67.5°		2.5
70°		0.0



(END OF REPORT)