

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: P584005

Luminaire Tested: **HC820D010-HM80520835-81PSMDW**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584005  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC820D010-HM80520835-81PSMDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" PLASTIC TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2239.8 lumens  
Efficiency: N/A  
Efficacy: 112.0 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.06 / 0.97  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

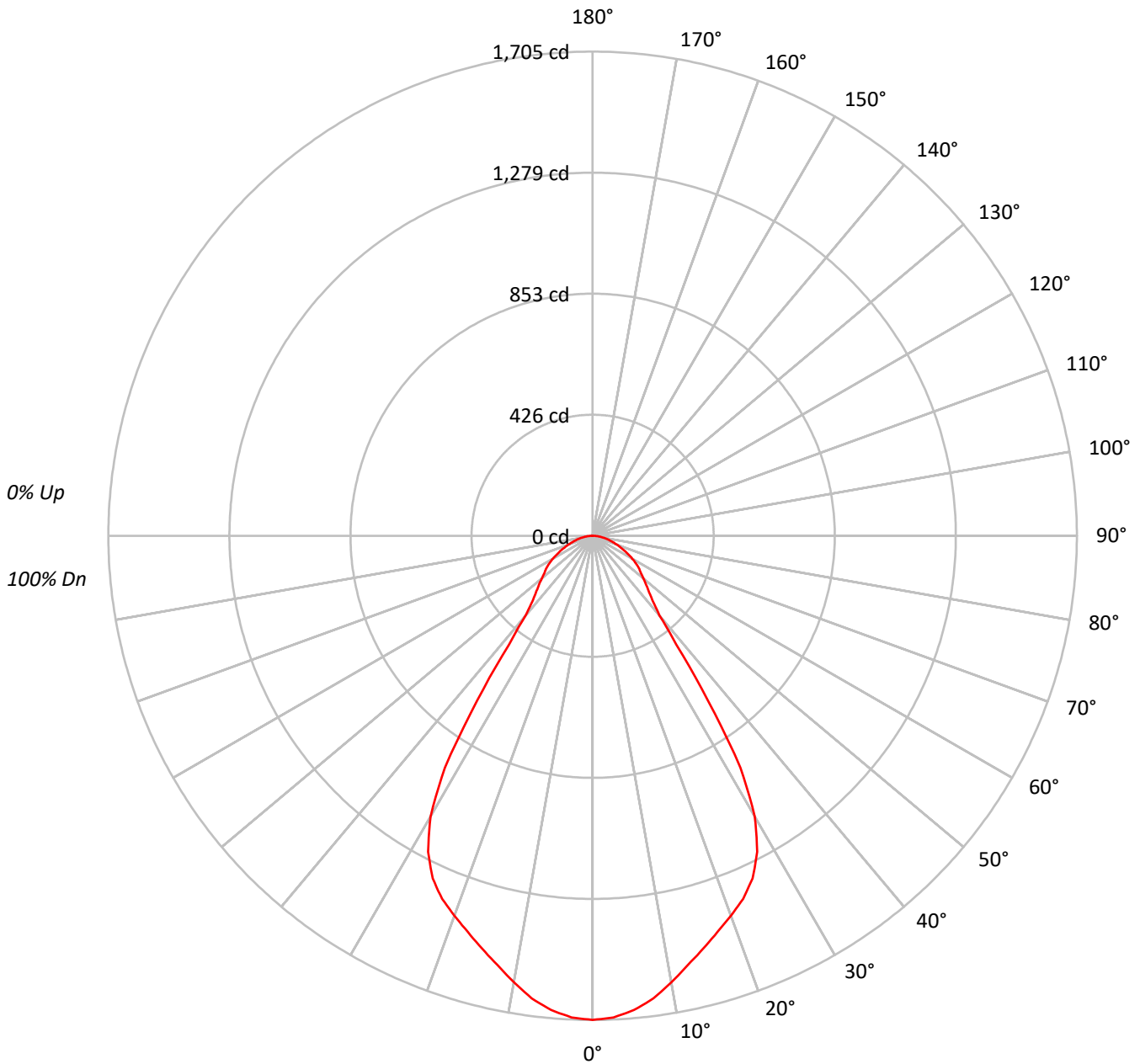
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79			79
3	97	89	83	77	95	87	82	77	85	80	76	82	78	74	80	76	73	71			71
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64			64
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58			58
6	80	69	62	57	78	68	61	56	67	61	56	65	60	56	64	59	55	53			53
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	60	55	51	49			49
8	71	60	53	48	70	59	52	48	58	52	47	57	51	47	56	51	47	45			45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42			42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39			39

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

	0°
0°	52576
5°	51891
10°	49990
15°	48036
20°	46709
25°	45303
30°	40652
35°	26648
40°	14737
45°	12285
50°	11197
55°	10688
60°	9935
65°	9011
70°	8150
75°	7351
80°	6695
85°	6404



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	157.5	7.0
10°-20°	424.5	19.0
20°-30°	604.2	27.0
30°-40°	447.1	20.0
40°-50°	221.5	9.9
50°-60°	176.7	7.9
60°-70°	122.7	5.5
70°-80°	66.1	3.0
80°-90°	19.5	0.9
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°	1186.2	53.0
0°-40°	1633.3	72.9
0°-60°	2031.5	90.7
0°-90°	2239.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2239.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1705	
5°	1676	158
15°	1505	425
25°	1332	604
35°	708	447
45°	282	221
55°	199	177
65°	124	123
75°	62	66
85°	18	19
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1705.0
2.5°	1697.5
5°	1676.4
7.5°	1643.2
10°	1596.5
12.5°	1548.4
15°	1504.7
17.5°	1462.5
20°	1423.4
22.5°	1384.2
25°	1331.5
27.5°	1254.7
30°	1141.7
32.5°	968.5
35°	707.9
37.5°	483.4
40°	366.1
42.5°	313.3
45°	281.7
47.5°	256.0
50°	233.4
52.5°	213.8
55°	198.8
57.5°	180.7
60°	161.1
62.5°	141.6
65°	123.5
67.5°	105.4
70°	90.4
72.5°	75.3
75°	61.7
77.5°	49.8
80°	37.7
82.5°	27.1
85°	18.1
87.5°	7.6
90°	0.0



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— 0°-180°







(END OF REPORT)