

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: P583990

Luminaire Tested: **HC820D010-HM80520830-81PSMDW**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583990  
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-HM80520830-81PSMDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" PLASTIC TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2153.0 lumens  
Efficiency: N/A  
Efficacy: 107.7 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

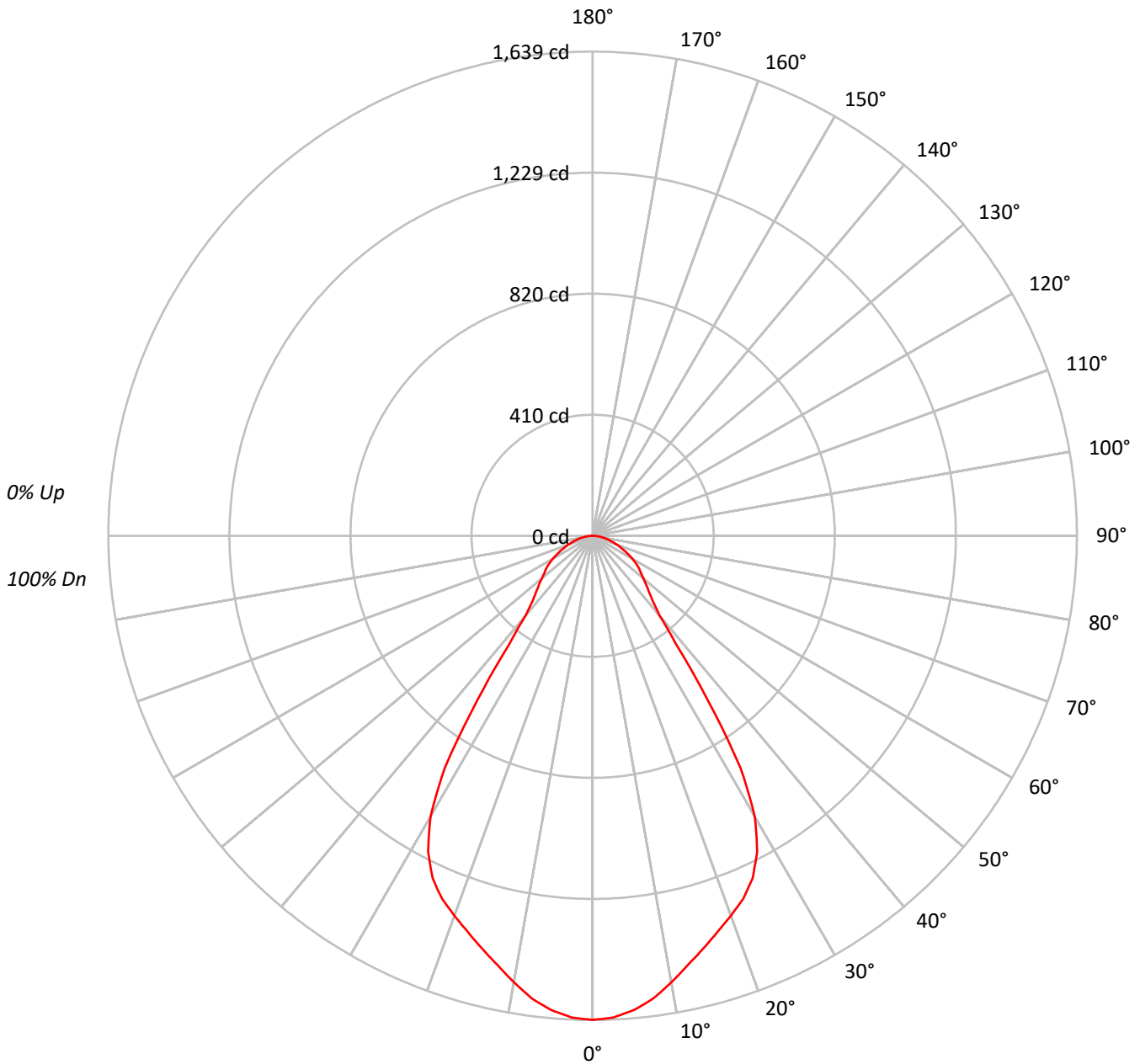
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			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°	50541
5°	49879
10°	48055
15°	46175
20°	44898
25°	43547
30°	39078
35°	25617
40°	14161
45°	11809
50°	10770
55°	10274
60°	9559
65°	8661
70°	7835
75°	7065
80°	6428
85°	6156



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.4	7.0
10°-20°	408.1	19.0
20°-30°	580.7	27.0
30°-40°	429.8	20.0
40°-50°	212.9	9.9
50°-60°	169.9	7.9
60°-70°	117.9	5.5
70°-80°	63.5	3.0
80°-90°	18.7	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°	1140.2	53.0
0°-40°	1570.1	72.9
0°-60°	1952.9	90.7
0°-90°	2153.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2153.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1639	
5°	1611	151
15°	1446	408
25°	1280	581
35°	680	430
45°	271	213
55°	191	170
65°	119	118
75°	59	64
85°	17	19
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1639.0
2.5°	1631.8
5°	1611.4
7.5°	1579.6
10°	1534.7
12.5°	1488.4
15°	1446.4
17.5°	1405.9
20°	1368.2
22.5°	1330.6
25°	1279.9
27.5°	1206.0
30°	1097.5
32.5°	930.9
35°	680.5
37.5°	464.8
40°	351.8
42.5°	301.2
45°	270.8
47.5°	246.1
50°	224.5
52.5°	205.5
55°	191.1
57.5°	173.8
60°	155.0
62.5°	136.0
65°	118.7
67.5°	101.3
70°	86.9
72.5°	72.3
75°	59.3
77.5°	47.8
80°	36.2
82.5°	26.0
85°	17.4
87.5°	7.2
90°	0.0



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— 0°-180°







(END OF REPORT)