

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: P593611

Luminaire Tested: **HC820D010-HM80520950-81PSMDW**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593611  
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-HM80520950-81PSMDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" PLASTIC TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2116.7 lumens  
Efficiency: N/A  
Efficacy: 105.8 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

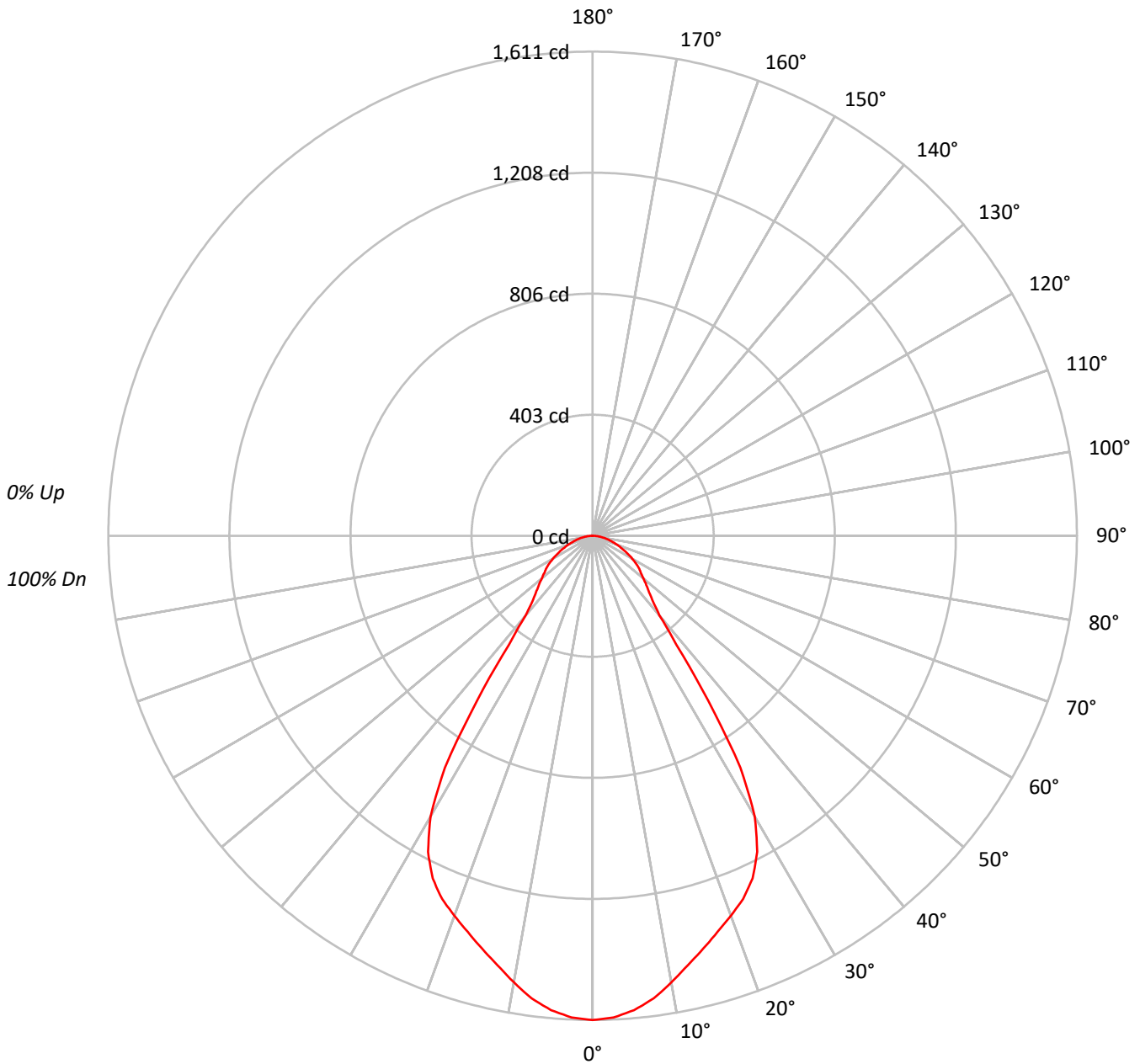
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89		
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79		
3	97	89	83	77	95	87	82	77	85	80	76	82	78	74	80	76	73	71		
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64		
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58		
6	80	69	62	57	78	68	61	56	67	61	56	65	60	56	64	59	55	53		
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	60	55	51	49		
8	71	60	53	48	70	59	52	48	58	52	47	57	51	47	56	51	47	45		
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42		
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39		

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

	0°
0°	49687
5°	49037
10°	47240
15°	45393
20°	44140
25°	42809
30°	38416
35°	25184
40°	13924
45°	11609
50°	10588
55°	10102
60°	9387
65°	8515
70°	7709
75°	6958
80°	6322
85°	6050



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	148.8	7.0
10°-20°	401.2	19.0
20°-30°	570.9	27.0
30°-40°	422.5	20.0
40°-50°	209.3	9.9
50°-60°	167.0	7.9
60°-70°	115.9	5.5
70°-80°	62.5	3.0
80°-90°	18.4	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°	1120.9	53.0
0°-40°	1543.5	72.9
0°-60°	1919.8	90.7
0°-90°	2116.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2116.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1611	
5°	1584	149
15°	1422	401
25°	1258	571
35°	669	423
45°	266	209
55°	188	167
65°	117	116
75°	58	63
85°	17	18
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1611.3
2.5°	1604.1
5°	1584.2
7.5°	1552.9
10°	1508.7
12.5°	1463.2
15°	1421.9
17.5°	1382.1
20°	1345.1
22.5°	1308.1
25°	1258.2
27.5°	1185.7
30°	1078.9
32.5°	915.2
35°	669.0
37.5°	456.8
40°	345.9
42.5°	296.1
45°	266.2
47.5°	242.0
50°	220.7
52.5°	202.1
55°	187.9
57.5°	170.8
60°	152.2
62.5°	133.8
65°	116.7
67.5°	99.6
70°	85.5
72.5°	71.2
75°	58.4
77.5°	46.9
80°	35.6
82.5°	25.6
85°	17.1
87.5°	7.1
90°	0.0



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— 0°-180°







(END OF REPORT)