

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: P583973

Luminaire Tested: **HC820D010-HM80520827-81PSMDW**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583973  
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-HM80520827-81PSMDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" PLASTIC TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2164.8 lumens  
Efficiency: N/A  
Efficacy: 108.2 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

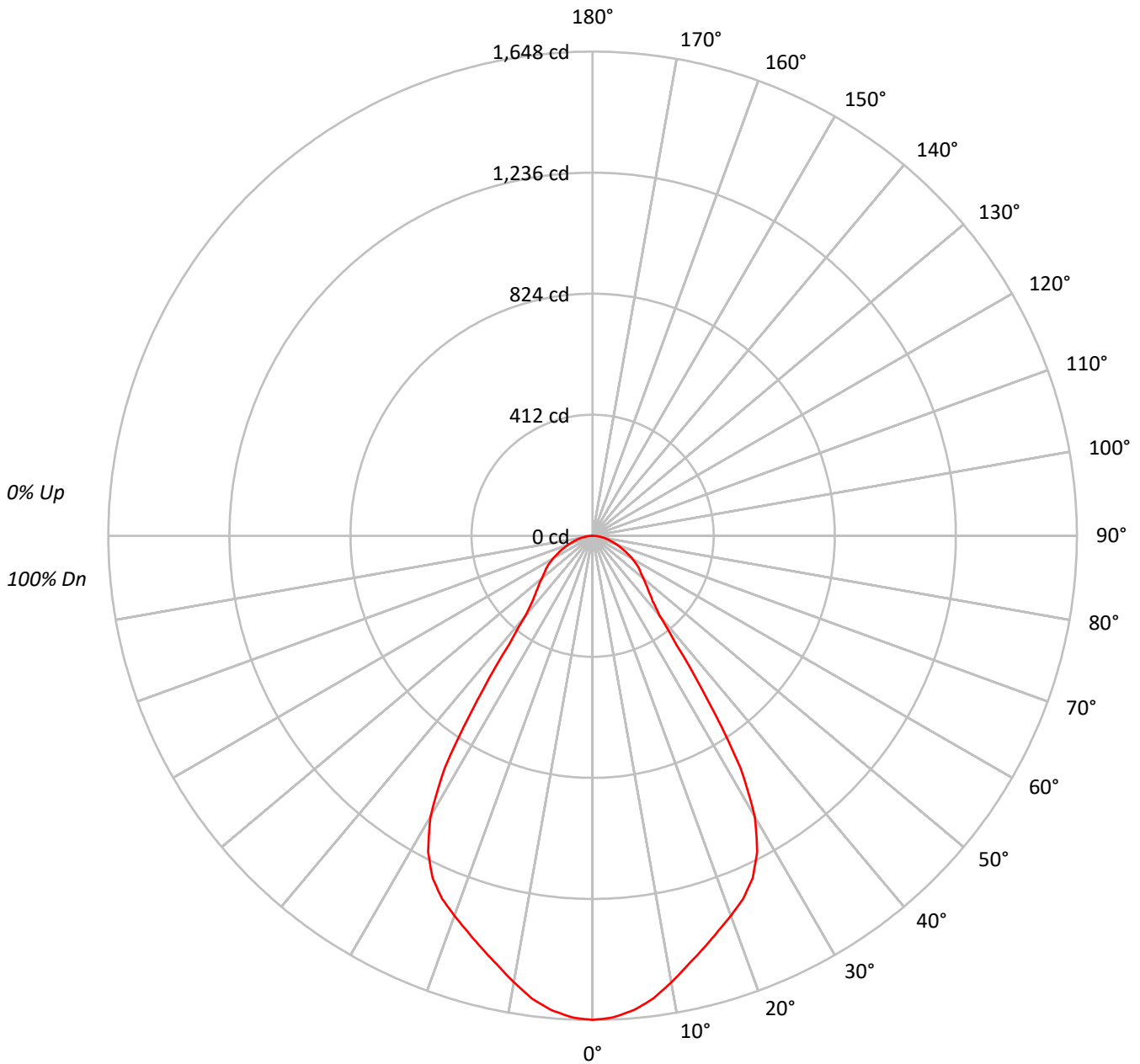
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			
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°	50812
5°	50152
10°	48318
15°	46424
20°	45141
25°	43782
30°	39288
35°	25752
40°	14242
45°	11870
50°	10823
55°	10333
60°	9609
65°	8712
70°	7871
75°	7113
80°	6464
85°	6192



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.2	7.0
10°-20°	410.3	19.0
20°-30°	583.9	27.0
30°-40°	432.1	20.0
40°-50°	214.1	9.9
50°-60°	170.8	7.9
60°-70°	118.6	5.5
70°-80°	63.9	3.0
80°-90°	18.8	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°	1146.4	53.0
0°-40°	1578.5	72.9
0°-60°	1963.4	90.7
0°-90°	2164.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2164.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1648	
5°	1620	152
15°	1454	410
25°	1287	584
35°	684	432
45°	272	214
55°	192	171
65°	119	119
75°	60	64
85°	18	19
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1647.8
2.5°	1640.6
5°	1620.2
7.5°	1588.1
10°	1543.1
12.5°	1496.4
15°	1454.2
17.5°	1413.6
20°	1375.6
22.5°	1337.8
25°	1286.8
27.5°	1212.6
30°	1103.4
32.5°	936.0
35°	684.1
37.5°	467.2
40°	353.8
42.5°	302.8
45°	272.2
47.5°	247.5
50°	225.6
52.5°	206.7
55°	192.2
57.5°	174.7
60°	155.8
62.5°	136.9
65°	119.4
67.5°	101.9
70°	87.3
72.5°	72.8
75°	59.7
77.5°	48.0
80°	36.4
82.5°	26.2
85°	17.5
87.5°	7.3
90°	0.0



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— 0°-180°







(END OF REPORT)