

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: P584019

Luminaire Tested: **HC820D010-HM80520840-81NDW**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584019  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC820D010-HM80520840-81NDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2167.0 lumens  
Efficiency: N/A  
Efficacy: 108.4 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.06 / 0.92  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

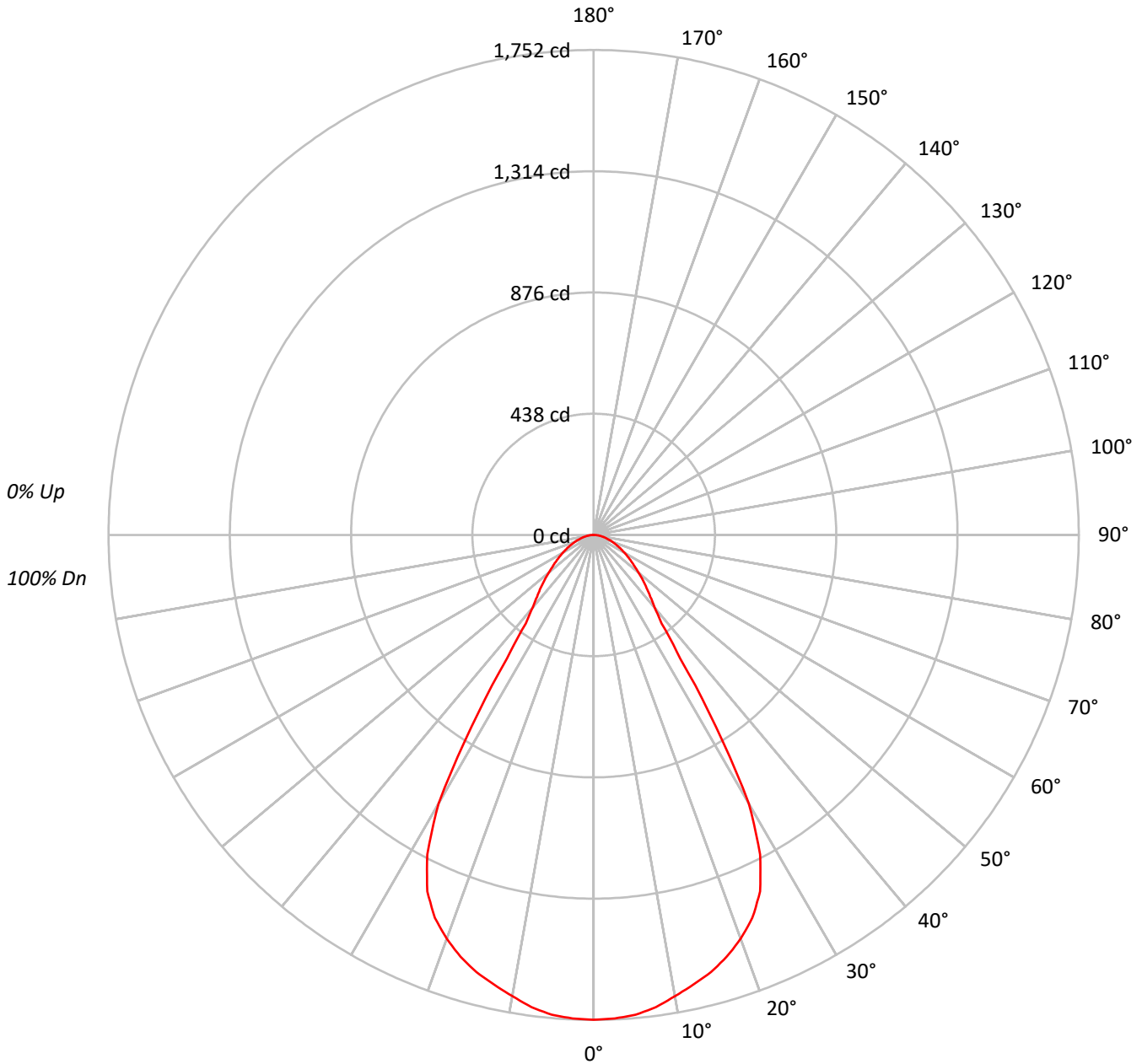
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90			
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81			
3	98	90	84	79	96	89	83	79	86	81	77	84	80	76	81	78	75	73			
4	92	83	76	71	90	82	76	71	80	74	70	77	73	69	75	72	68	67			
5	87	77	70	65	85	76	69	64	74	68	64	72	67	63	70	66	63	61			
6	82	71	64	59	80	70	64	59	69	63	58	67	62	58	66	61	58	56			
7	77	66	59	54	76	66	59	54	64	58	54	63	58	54	62	57	53	52			
8	73	62	55	50	71	61	55	50	60	54	50	59	54	50	58	53	49	48			
9	69	58	51	47	68	57	51	47	56	51	46	55	50	46	55	50	46	45			
10	65	55	48	44	64	54	48	44	53	47	43	52	47	43	52	47	43	42			

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

	0°
0°	54013
5°	53869
10°	52971
15°	52199
20°	50943
25°	48362
30°	39890
35°	20539
40°	13751
45°	11788
50°	10175
55°	8876
60°	7888
65°	7092
70°	6428
75°	5790
80°	5185
85°	5130



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	164.5	7.6
10°-20°	460.0	21.2
20°-30°	637.4	29.4
30°-40°	382.9	17.7
40°-50°	209.6	9.7
50°-60°	148.9	6.9
60°-70°	96.7	4.5
70°-80°	51.7	2.4
80°-90°	15.4	0.7
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°	1262.0	58.2
0°-40°	1644.8	75.9
0°-60°	2003.3	92.4
0°-90°	2167.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2167.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1752	
5°	1740	165
15°	1635	460
25°	1421	637
35°	546	383
45°	270	210
55°	165	149
65°	97	97
75°	49	52
85°	14	15
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1751.6
2.5°	1748.4
5°	1740.3
7.5°	1720.9
10°	1691.7
12.5°	1664.1
15°	1635.1
17.5°	1597.8
20°	1552.4
22.5°	1497.5
25°	1421.4
27.5°	1301.6
30°	1120.3
32.5°	820.8
35°	545.6
37.5°	403.1
40°	341.6
42.5°	302.7
45°	270.3
47.5°	239.6
50°	212.1
52.5°	186.2
55°	165.1
57.5°	145.7
60°	127.9
62.5°	111.7
65°	97.2
67.5°	82.5
70°	71.3
72.5°	58.3
75°	48.6
77.5°	38.9
80°	29.2
82.5°	21.0
85°	14.5
87.5°	6.5
90°	0.0



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— 0°-180°







(END OF REPORT)