

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: P583996

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

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583996  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-9)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC820D010-HM80520830-81WDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2224.0 lumens  
Efficiency: N/A  
Efficacy: 111.2 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.06  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

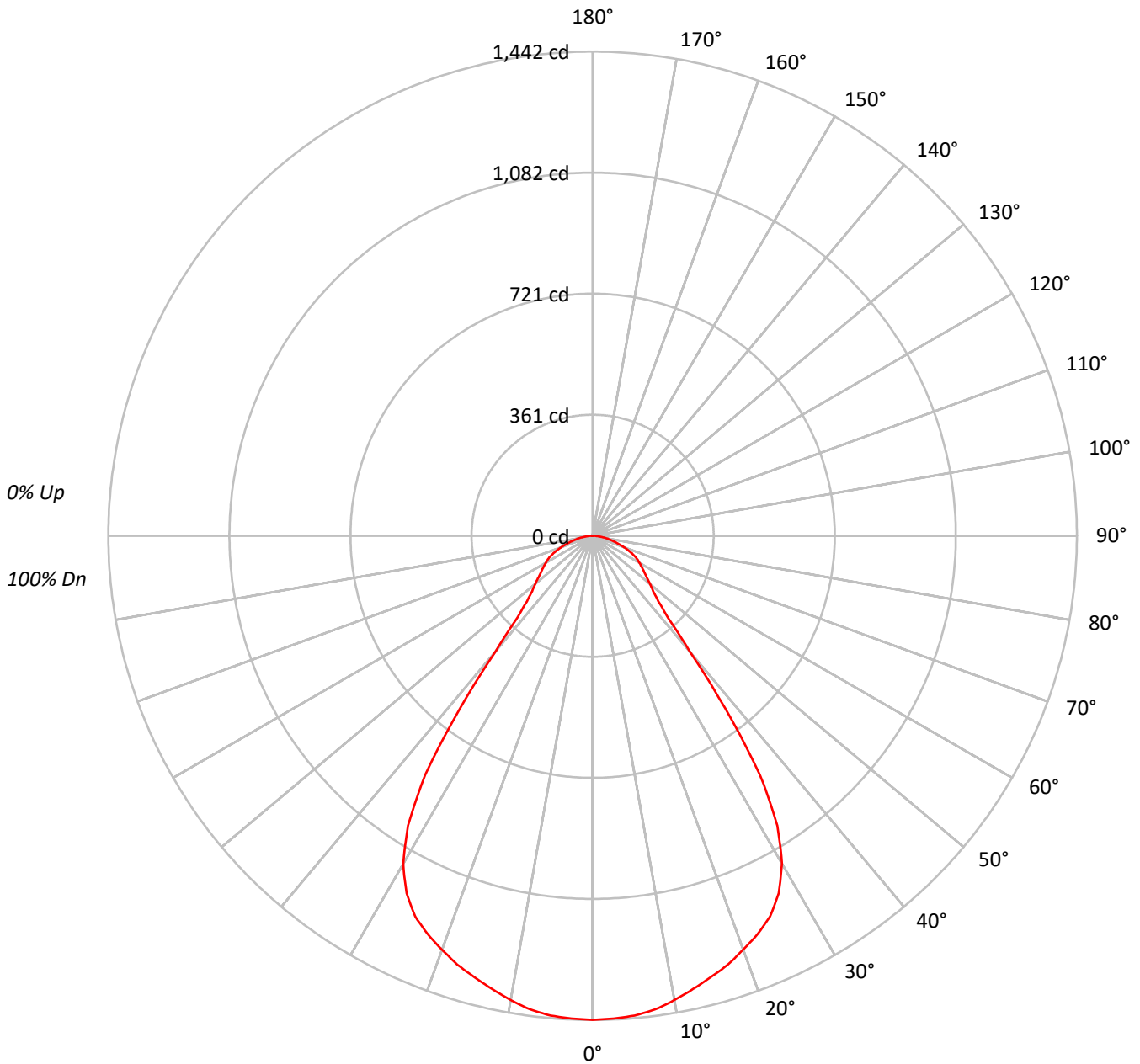
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89			89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79			79
3	97	88	82	76	94	87	81	76	84	79	75	81	77	73	79	75	72	70			70
4	90	80	73	68	88	79	73	67	77	71	67	75	70	66	73	68	65	63			63
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57			57
6	79	68	61	55	77	67	60	55	65	59	55	64	58	54	62	58	54	52			52
7	74	63	56	50	73	62	55	50	61	54	50	59	54	50	58	53	49	48			48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44			44
9	66	54	47	43	65	54	47	42	53	47	42	52	46	42	51	46	42	40			40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37			37

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

	0°
0°	44463
5°	44407
10°	43968
15°	43442
20°	43037
25°	42557
30°	40154
35°	32702
40°	18066
45°	12058
50°	10693
55°	10043
60°	9905
65°	9821
70°	8881
75°	7923
80°	6943
85°	6156



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.0	6.1
10°-20°	384.2	17.3
20°-30°	570.9	25.7
30°-40°	514.2	23.1
40°-50°	228.0	10.2
50°-60°	168.8	7.6
60°-70°	131.3	5.9
70°-80°	71.2	3.2
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°	1091.1	49.1
0°-40°	1605.3	72.2
0°-60°	2002.1	90.0
0°-90°	2224.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2224.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1442	
5°	1435	136
15°	1361	384
25°	1251	571
35°	869	514
45°	276	228
55°	187	169
65°	135	131
75°	66	71
85°	17	19
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1441.9
2.5°	1439.0
5°	1434.6
7.5°	1423.0
10°	1404.2
12.5°	1382.6
15°	1360.8
17.5°	1339.1
20°	1311.5
22.5°	1284.1
25°	1250.8
27.5°	1200.1
30°	1127.7
32.5°	1023.5
35°	868.7
37.5°	648.6
40°	448.8
42.5°	331.6
45°	276.5
47.5°	244.7
50°	222.9
52.5°	202.7
55°	186.8
57.5°	173.8
60°	160.6
62.5°	149.2
65°	134.6
67.5°	117.3
70°	98.5
72.5°	82.5
75°	66.5
77.5°	52.1
80°	39.1
82.5°	27.5
85°	17.4
87.5°	7.2
90°	0.0



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— 0°-180°







(END OF REPORT)