

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: P584024

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

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584024  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-7)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC820D010-HM80520840-81WDC  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2718.8 lumens  
Efficiency: N/A  
Efficacy: 135.9 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1.1 / 1.05  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

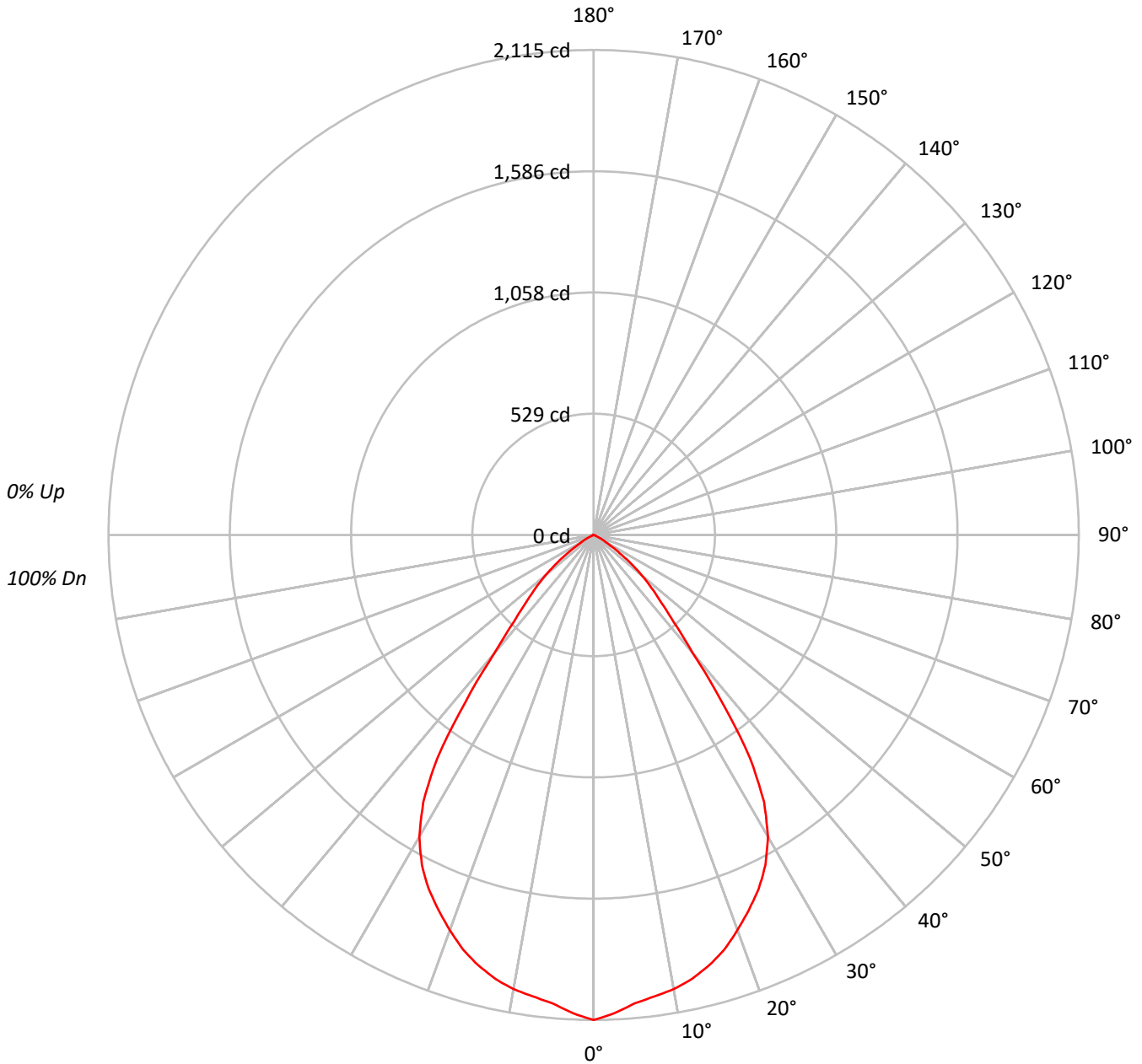
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	100
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92	92	92	92
2	106	101	96	93	104	99	95	92	96	92	90	93	90	88	90	88	86	84	84	84	84
3	100	93	87	83	98	91	86	82	89	84	81	86	83	79	84	81	78	77	77	77	77
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	75	71	70	70	70	70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64	64	64	64
6	83	73	66	62	82	72	66	61	71	65	61	69	64	61	68	64	60	59	59	59	59
7	78	68	61	57	77	67	61	56	66	60	56	65	60	56	63	59	55	54	54	54	54
8	74	63	57	52	73	63	56	52	62	56	52	60	55	51	59	55	51	50	50	50	50
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	46	46	46	46
10	66	55	49	45	65	55	49	45	54	48	44	53	48	44	52	48	44	43	43	43	43

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

	0°
0°	65231
5°	63478
10°	62994
15°	62054
20°	60177
25°	57933
30°	54115
35°	44782
40°	27039
45°	18211
50°	13121
55°	7484
60°	3293
65°	1182
70°	433
75°	203
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	194.8	7.2
10°-20°	546.3	20.1
20°-30°	779.3	28.7
30°-40°	709.6	26.1
40°-50°	334.7	12.3
50°-60°	131.6	4.8
60°-70°	21.0	0.8
70°-80°	1.5	0.1
80°-90°	0.0	0.0
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°	1520.4	55.9
0°-40°	2230.0	82.0
0°-60°	2696.4	99.2
0°-90°	2718.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2718.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2115	
5°	2051	195
15°	1944	546
25°	1703	779
35°	1190	710
45°	418	335
55°	139	132
65°	16	21
75°	2	2
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	2115.4
2.5°	2087.9
5°	2050.7
7.5°	2029.6
10°	2011.8
12.5°	1982.7
15°	1943.8
17.5°	1895.2
20°	1833.8
22.5°	1769.0
25°	1702.7
27.5°	1621.7
30°	1519.8
32.5°	1382.2
35°	1189.6
37.5°	919.4
40°	671.7
42.5°	516.3
45°	417.6
47.5°	343.1
50°	273.5
52.5°	205.5
55°	139.2
57.5°	87.3
60°	53.4
62.5°	32.4
65°	16.2
67.5°	8.0
70°	4.8
72.5°	1.7
75°	1.7
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)