

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: P583970

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

Issue Date: 10/21/2021

Test Information

Test Method: LM-41-14
Report Number: P583970
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 10/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC820D010-HM80520827-81NDC
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2161.8 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Spacing Criteria (0/90/45): 0.22 / 0.22 / 0.27
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

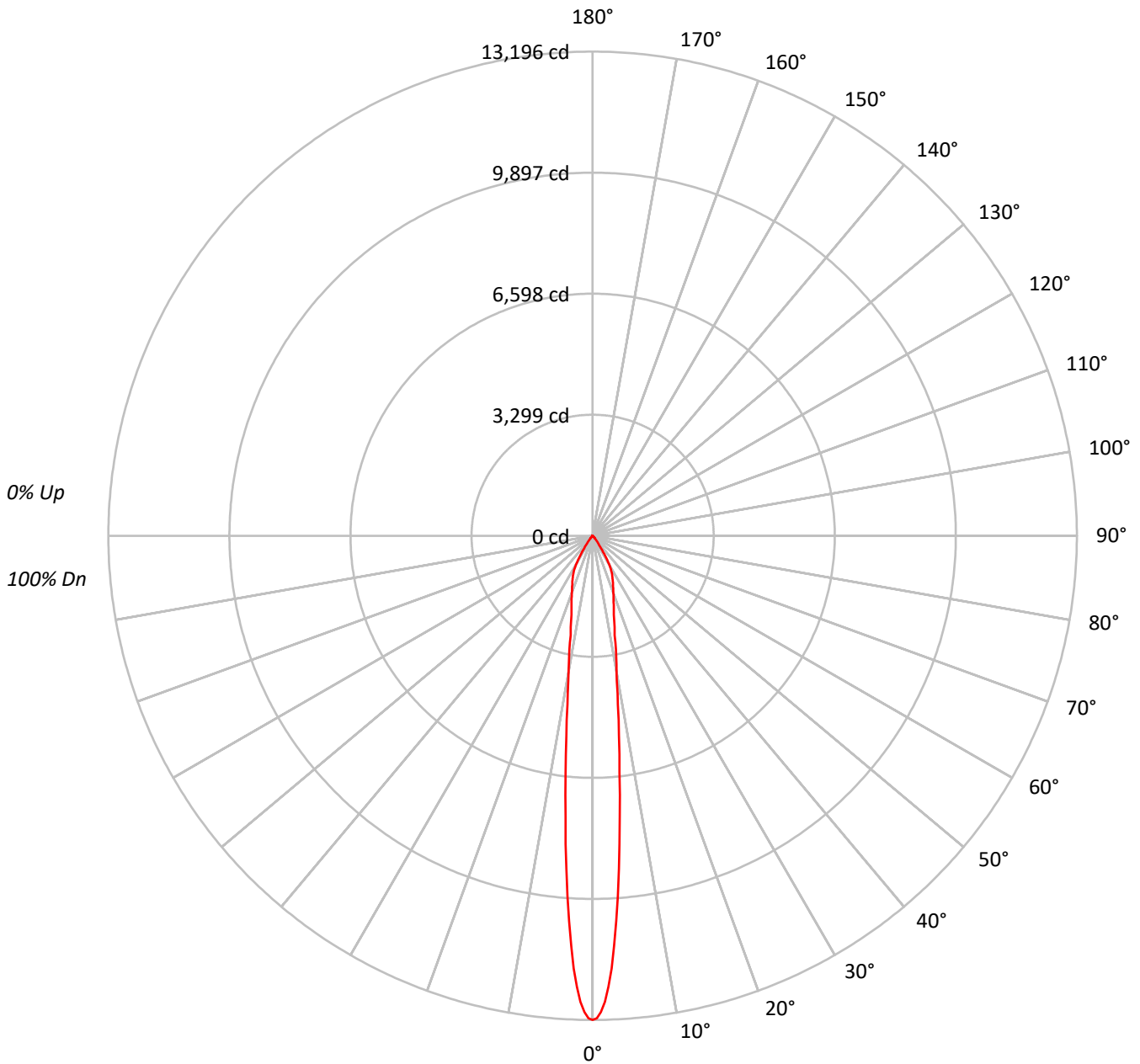
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	115	112	110	108	112	110	108	107	106	105	103	102	101	100	99	98	97	96			
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91			
3	106	101	97	93	104	99	96	93	97	94	91	95	92	90	92	90	89	87			
4	102	96	91	88	100	95	91	88	93	89	87	91	88	86	89	87	85	83			
5	98	92	87	83	97	91	86	83	89	85	82	87	84	82	86	83	81	80			
6	95	88	83	79	93	87	82	79	86	82	79	84	81	78	83	80	78	76			
7	91	84	79	76	90	83	79	76	82	78	75	81	78	75	80	77	75	73			
8	88	81	76	73	87	80	76	73	79	75	72	78	75	72	77	74	72	71			
9	85	78	73	70	84	77	73	70	76	72	70	76	72	69	75	72	69	68			
10	83	75	70	67	82	75	70	67	74	70	67	73	69	67	73	69	67	66			

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	406907
5°	260999
10°	117902
15°	71140
20°	54211
25°	43779
30°	32078
35°	11617
40°	4335
45°	1971
50°	628
55°	161
60°	86
65°	102
70°	0
75°	0
80°	249
85°	495



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	643.1	29.7
10°-20°	653.2	30.2
20°-30°	584.7	27.0
30°-40°	235.5	10.9
40°-50°	38.6	1.8
50°-60°	3.5	0.2
60°-70°	1.2	0.1
70°-80°	0.9	0.0
80°-90°	1.3	0.1
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°	1881.0	87.0
0°-40°	2116.5	97.9
0°-60°	2158.7	99.9
0°-90°	2162.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2161.8	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	13196	
5°	8432	643
15°	2228	653
25°	1287	585
35°	309	236
45°	45	39
55°	3	4
65°	1	1
75°	0	1
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	13195.7
0.5°	13155.0
1°	12984.6
1.5°	12711.0
2°	12296.1
2.5°	11805.7
3°	11191.4
3.5°	10517.6
4°	9850.9
4.5°	9104.2
5°	8431.8
5.5°	7699.7
6°	7105.8
6.5°	6487.2
7°	6001.1
7.5°	5487.3
8°	5074.0
8.5°	4659.1
9°	4347.6
9.5°	4004.1
10°	3765.4
12.5°	2777.1
15°	2228.4
17.5°	1903.8
20°	1652.0
22.5°	1451.1
25°	1286.7
27.5°	1122.2
30°	900.9
32.5°	579.3
35°	308.6
37.5°	170.3
40°	107.7
42.5°	71.3
45°	45.2
47.5°	27.7
50°	13.1
52.5°	4.4
55°	3.0
57.5°	1.4
60°	1.4
62.5°	1.4
65°	1.4



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CANDELA DISTRIBUTION (continued):

	0°
72.5°	0.0
75°	0.0
77.5°	1.4
80°	1.4
82.5°	1.4
85°	1.4
87.5°	1.4
90°	0.0



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— 0°-180°







67.5°		1.4
70°		0.0



(END OF REPORT)