

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: P583971

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

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583971  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC820D010-HM80520827-81NDH  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1971.1 lumens  
Efficiency: N/A  
Efficacy: 98.6 lumens/watt  
Spacing Criteria (0/90/45): 0.42 / 0.42 / 0.57  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

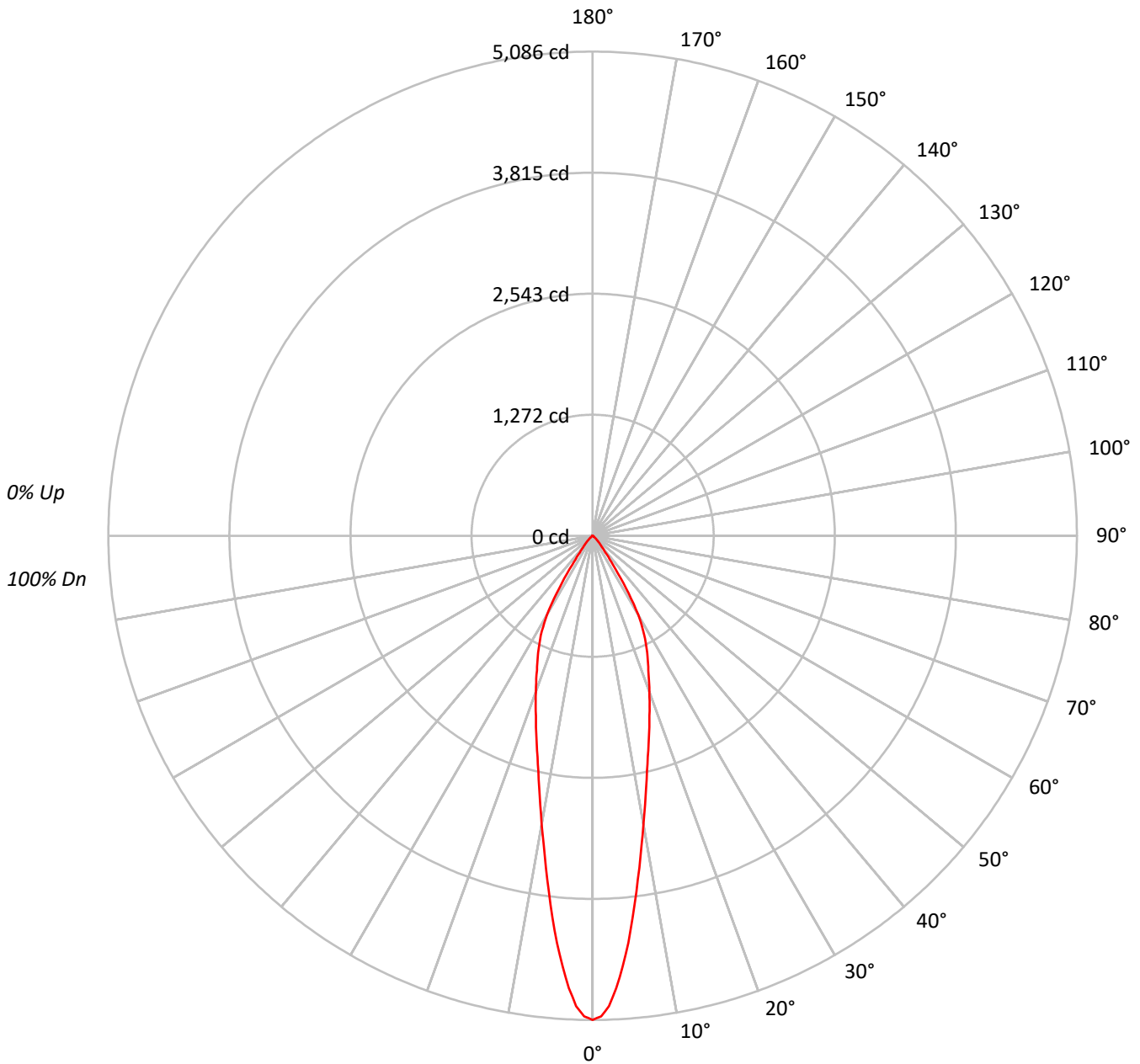
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P583971

CATALOG NUMBER: HC820D010-HM80520827-81NDH

### Luminous Intensity Polar Plot





TEST NUMBER: P583971

CATALOG NUMBER: HC820D010-HM80520827-81NDH

**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	114	112	109	107	112	109	107	106	105	104	102	102	100	99	98	97	96	95	95	95	95
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89	89	89	89
3	104	99	94	91	102	97	93	90	95	91	88	92	90	87	90	88	86	84	84	84	84
4	100	93	88	84	98	92	87	84	90	86	83	88	85	82	86	83	81	80	80	80	80
5	96	88	83	79	94	87	82	79	86	81	78	84	80	77	82	79	77	75	75	75	75
6	92	84	78	75	90	83	78	74	81	77	74	80	76	73	79	76	73	72	72	72	72
7	88	80	74	71	87	79	74	70	78	73	70	77	73	70	76	72	69	68	68	68	68
8	84	76	71	67	83	75	70	67	74	70	66	73	69	66	72	69	66	65	65	65	65
9	81	72	67	64	80	72	67	63	71	66	63	70	66	63	69	66	63	62	62	62	62
10	78	69	64	61	77	69	64	61	68	63	60	67	63	60	67	63	60	59	59	59	59

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

	0°
0°	156846
5°	132880
10°	96410
15°	72401
20°	57125
25°	46079
30°	34147
35°	13834
40°	5833
45°	3127
50°	1406
55°	704
60°	450
65°	321
70°	270
75°	167
80°	249
85°	495



TEST NUMBER: P583971

CATALOG NUMBER: HC820D010-HM80520827-81NDH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	368.6	18.7
10°-20°	637.0	32.3
20°-30°	615.9	31.2
30°-40°	270.5	13.7
40°-50°	58.4	3.0
50°-60°	13.1	0.7
60°-70°	4.5	0.2
70°-80°	1.7	0.1
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°	1621.4	82.3
0°-40°	1891.9	96.0
0°-60°	1963.5	99.6
0°-90°	1971.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1971.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	5086	
5°	4293	369
15°	2268	637
25°	1354	616
35°	368	270
45°	72	58
55°	13	13
65°	4	5
75°	1	2
85°	1	1
90°	0	



TEST NUMBER: P583971

CATALOG NUMBER: HC820D010-HM80520827-81NDH

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	5086.4
1°	5048.3
2°	4944.3
3°	4757.0
4°	4533.0
5°	4292.8
6°	4030.7
7°	3767.2
8°	3519.8
9°	3289.9
10°	3079.0
11°	2879.9
12°	2701.3
13°	2538.8
14°	2395.3
15°	2267.9
17.5°	1982.5
20°	1740.8
22.5°	1528.6
25°	1354.3
27.5°	1177.2
30°	959.0
32.5°	651.5
35°	367.5
37.5°	216.7
40°	144.9
42.5°	102.5
45°	71.7
47.5°	46.8
50°	29.3
52.5°	17.6
55°	13.1
57.5°	10.3
60°	7.3
62.5°	5.9
65°	4.4
67.5°	3.0
70°	3.0
72.5°	1.4
75°	1.4
77.5°	1.4
80°	1.4
82.5°	1.4



TEST NUMBER: P583971

CATALOG NUMBER: HC820D010-HM80520827-81NDH

**CANDELA DISTRIBUTION (continued):**

0°  
90° | 0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P







— 0°-180°







85°	1.4
87.5°	1.4



(END OF REPORT)