

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

Report Number: P123661

Luminaire Tested: **EL406927-TL410H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P123661  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13974)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: EL406927-TL410H  
Description: HALO 4-INCH RECESSED LED DOWNLIGHT  
HAZE SEMI-SPECULAR REFLECTOR, DIFFUSE DROP LENS AND WHITE TRIM RING  
Light Source: (1)SURFACE MOUNT LED, 2700K CCT, 90CRI  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

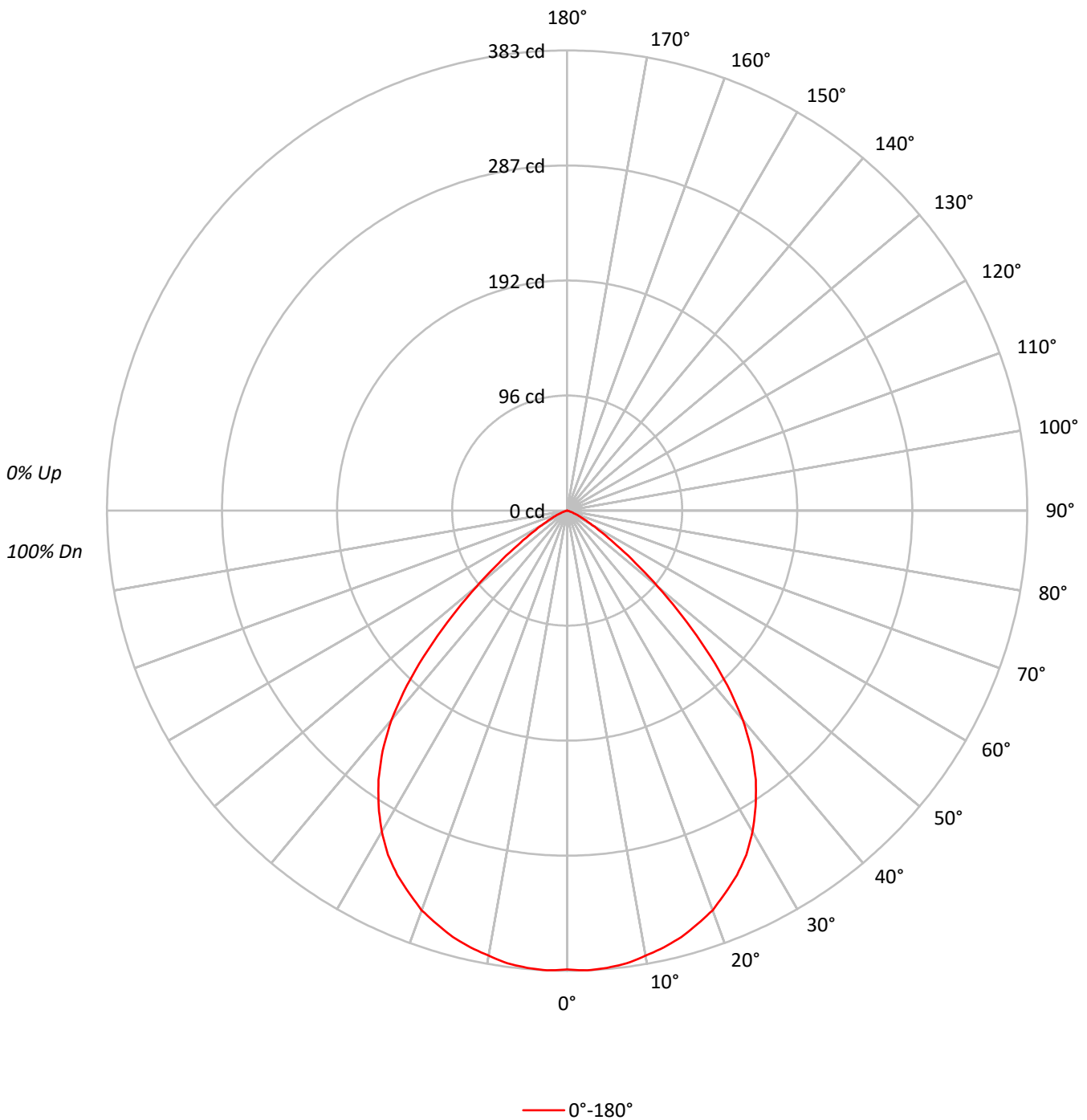
Lumens per Lamp: N/A  
Luminaire Lumens: 650.0 lumens  
Efficiency: N/A  
Efficacy: 50.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.22  
Luminous Opening: Circular (Dia: 0.29' x H: 0')  
CIE Type: Direct

Input Watts (W): 13  
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	82	76	70	90	81	75	70	79	73	69	77	72	68	75	71	67	66
5	86	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59
6	80	69	62	57	78	68	61	56	67	60	56	65	60	55	64	59	55	53
7	75	64	56	51	73	63	56	51	61	55	51	60	55	50	59	54	50	48
8	70	59	51	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44
9	66	54	47	43	65	54	47	42	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	48	42	39	37

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

	0°
0°	61542
5°	61777
10°	61542
15°	61294
20°	60691
25°	59478
30°	57389
35°	53829
40°	47803
45°	37251
50°	24737
55°	14128
60°	7797
65°	4422
70°	1837
75°	622
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.3	5.6
10°-20°	103.6	15.9
20°-30°	153.7	23.6
30°-40°	169.6	26.1
40°-50°	125.1	19.2
50°-60°	48.3	7.4
60°-70°	12.0	1.8
70°-80°	1.5	0.2
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°	293.5	45.2
0°-40°	463.1	71.2
0°-60°	636.5	97.9
0°-90°	650.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	650.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	382	
5°	382	36
15°	368	104
25°	335	154
35°	274	170
45°	164	125
55°	50	48
65°	12	12
75°	1	2
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	382.0
2.5°	383.0
5°	382.0
7.5°	380.1
10°	376.2
12.5°	372.4
15°	367.5
17.5°	360.8
20°	354.0
22.5°	344.3
25°	334.6
27.5°	323.0
30°	308.5
32.5°	292.1
35°	273.7
37.5°	252.4
40°	227.3
42.5°	197.3
45°	163.5
47.5°	129.6
50°	98.7
52.5°	71.6
55°	50.3
57.5°	34.8
60°	24.2
62.5°	16.4
65°	11.6
67.5°	6.8
70°	3.9
72.5°	1.9
75°	1.0
77.5°	1.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)