

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: P123681

Luminaire Tested: **EL406927-TL410WH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P123681  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13979)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: EL406927-TL410WH  
Description: HALO 4-INCH RECESSED LED DOWNLIGHT  
WHITE REFLECTOR, DIFFUSE DROP LENS AND WHITE TRIM RING  
Light Source: (1)SURFACE MOUNT LED, 2700K CCT, 90CRI  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

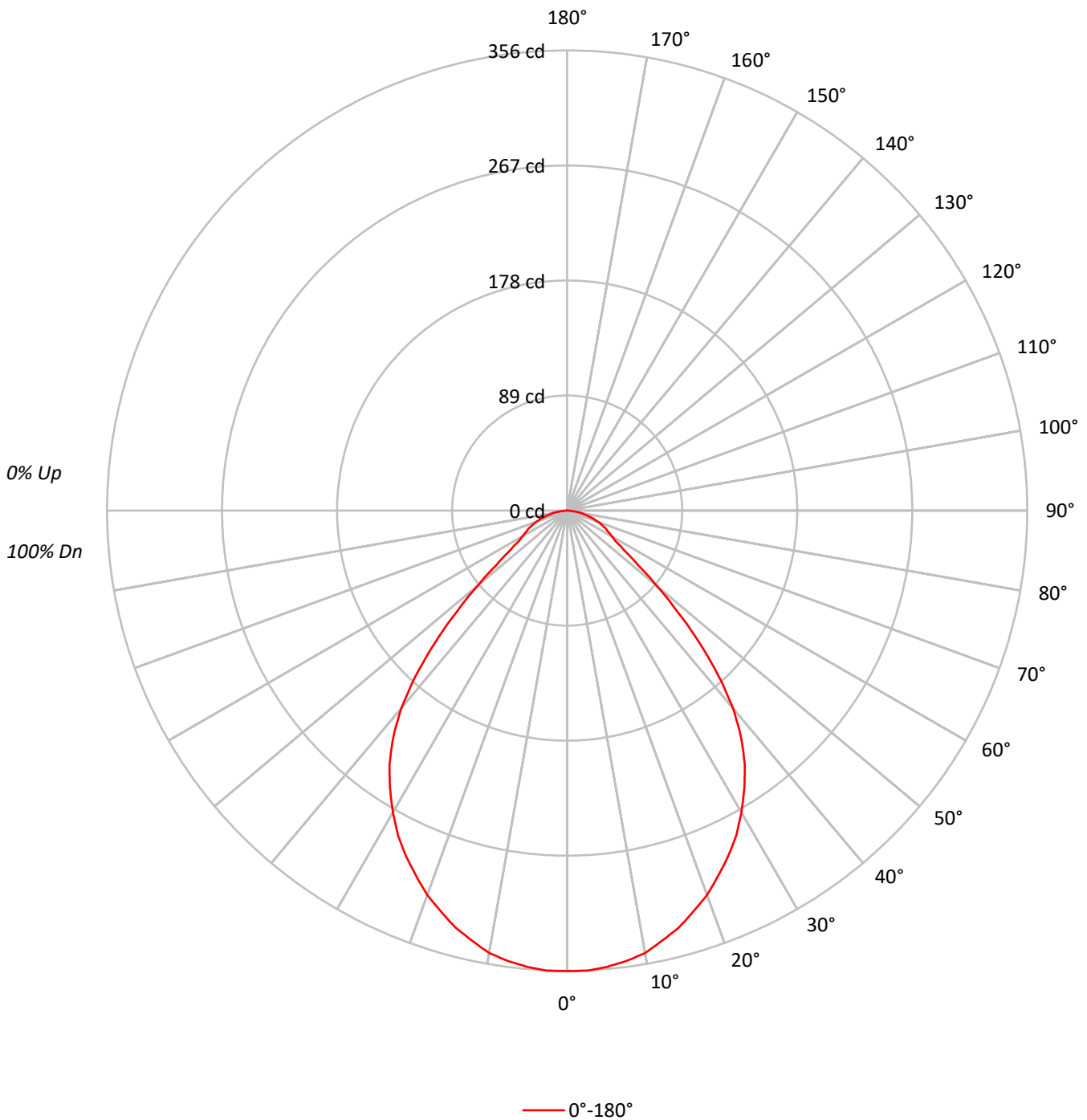
Lumens per Lamp: N/A  
Luminaire Lumens: 630.0 lumens  
Efficiency: N/A  
Efficacy: 48.5 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.14 / 1.19  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

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	111	107	104	101	109	105	102	99	101	98	96	97	95	93	94	92	91	89
2	103	97	91	86	101	95	90	85	91	87	84	88	85	82	85	82	80	78
3	96	87	80	75	94	86	79	75	83	78	73	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	75	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	53	63	57	52	62	56	52	60	55	51	49
7	72	61	53	48	71	60	53	47	58	52	47	57	51	47	56	51	47	45
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

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

	0°
0°	78130
5°	77988
10°	77376
15°	75801
20°	73833
25°	71351
30°	68264
35°	64112
40°	57107
45°	44966
50°	30873
55°	20836
60°	17499
65°	17174
70°	16221
75°	14827
80°	13512
85°	9812



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.6	5.3
10°-20°	93.9	14.9
20°-30°	135.6	21.5
30°-40°	148.4	23.6
40°-50°	110.9	17.6
50°-60°	52.0	8.2
60°-70°	32.4	5.1
70°-80°	18.6	3.0
80°-90°	4.6	0.7
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°	263.1	41.8
0°-40°	411.4	65.3
0°-60°	574.3	91.2
0°-90°	630.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	630.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	356	
5°	354	34
15°	334	94
25°	295	136
35°	240	148
45°	145	111
55°	54	52
65°	33	32
75°	18	19
85°	4	5
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	356.3
2.5°	356.3
5°	354.3
7.5°	351.4
10°	347.5
12.5°	340.7
15°	333.9
17.5°	325.1
20°	316.4
22.5°	305.6
25°	294.9
27.5°	283.3
30°	269.6
32.5°	255.0
35°	239.5
37.5°	221.0
40°	199.5
42.5°	173.3
45°	145.0
47.5°	115.8
50°	90.5
52.5°	69.1
55°	54.5
57.5°	44.8
60°	39.9
62.5°	36.0
65°	33.1
67.5°	29.2
70°	25.3
72.5°	21.4
75°	17.5
77.5°	13.6
80°	10.7
82.5°	6.8
85°	3.9
87.5°	1.0
90°	0.0

(END OF REPORT)