

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: P123677

Luminaire Tested: **EL406927-TL410TBZ**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P123677  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13978)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: EL406927-TL410TBZ  
Description: HALO 4-INCH RECESSED LED DOWNLIGHT  
TUSCAN BRONZE REFLECTOR, DIFFUSE DROP LENS AND TUSCAN BRONZE TRIM RING  
Light Source: (1)SURFACE MOUNT LED, 2700K CCT, 90CRI  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 450.0 lumens  
Efficiency: N/A  
Efficacy: 34.6 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.17  
Luminous Opening: Circular (Dia: 0.29' x H: 0')  
CIE Type: Direct

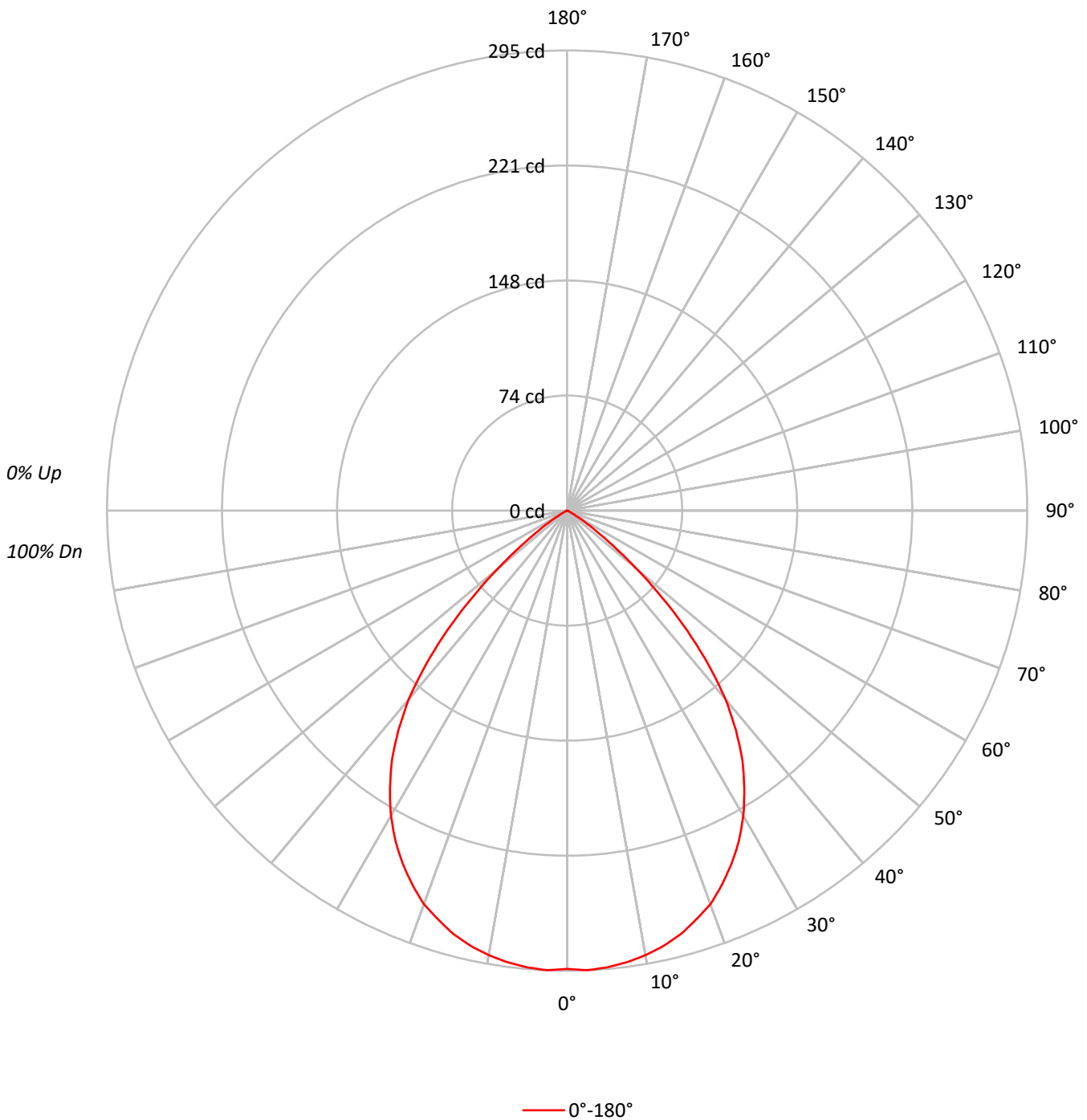
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P123677

CATALOG NUMBER: EL406927-TL410TBZ

### Luminous Intensity Polar Plot





TEST NUMBER: P123677

CATALOG NUMBER: EL406927-TL410TBZ

**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	113	109	107	104	110	107	105	102	103	101	99		99	98	96		96	95	94	92
2	106	100	96	92	104	98	94	91	95	92	89		92	89	87		89	87	85	83
3	99	92	86	81	97	90	85	81	88	83	79		85	81	78		83	80	77	75
4	93	84	78	73	91	83	77	72	81	75	71		79	74	71		77	73	70	68
5	87	77	70	65	85	76	70	65	74	69	64		73	68	64		71	67	63	62
6	82	71	64	59	80	70	64	59	69	63	59		67	62	58		66	61	58	56
7	77	66	59	54	75	65	58	54	64	58	53		62	57	53		61	56	53	51
8	72	61	54	49	71	60	54	49	59	53	49		58	53	49		57	52	48	47
9	68	57	50	45	67	56	50	45	55	49	45		54	49	45		53	48	45	43
10	64	53	46	42	63	52	46	42	51	45	41		51	45	41		50	45	41	40

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

	0°
0°	47348
5°	47529
10°	47343
15°	46900
20°	46032
25°	44351
30°	42023
35°	38548
40°	33207
45°	24811
50°	14562
55°	6123
60°	1740
65°	343
70°	0
75°	0
80°	0
85°	0



TEST NUMBER: P123677

CATALOG NUMBER: EL406927-TL410TBZ

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.9	6.2
10°-20°	79.1	17.6
20°-30°	114.5	25.5
30°-40°	121.2	26.9
40°-50°	82.9	18.4
50°-60°	22.6	5.0
60°-70°	1.8	0.4
70°-80°	0.0	0.0
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°	221.6	49.2
0°-40°	342.8	76.2
0°-60°	448.3	99.6
0°-90°	450.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	450.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	294	
5°	294	28
15°	281	79
25°	250	115
35°	196	121
45°	109	83
55°	22	23
65°	1	2
75°	0	0
85°	0	0
90°	0	



TEST NUMBER: P123677

CATALOG NUMBER: EL406927-TL410TBZ

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	293.9
2.5°	294.9
5°	293.9
7.5°	292.1
10°	289.4
12.5°	285.8
15°	281.2
17.5°	274.9
20°	268.5
22.5°	259.5
25°	249.5
27.5°	238.6
30°	225.9
32.5°	211.4
35°	196.0
37.5°	177.8
40°	157.9
42.5°	134.3
45°	108.9
47.5°	82.6
50°	58.1
52.5°	37.2
55°	21.8
57.5°	11.8
60°	5.4
62.5°	2.7
65°	0.9
67.5°	0.9
70°	0.0
72.5°	0.0
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)