

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: P123667

Luminaire Tested: **EL406935-TL410SBK**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P123667  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13975)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: EL406935-TL410SBK  
Description: HALO 4-INCH RECESSED LED DOWNLIGHT  
SPECULAR BLACK REFLECTOR, DIFFUSE DROP LENS AND WHITE TRIM RING  
Light Source: (1)SURFACE MOUNT LED, 3500K CCT, 90CRI  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

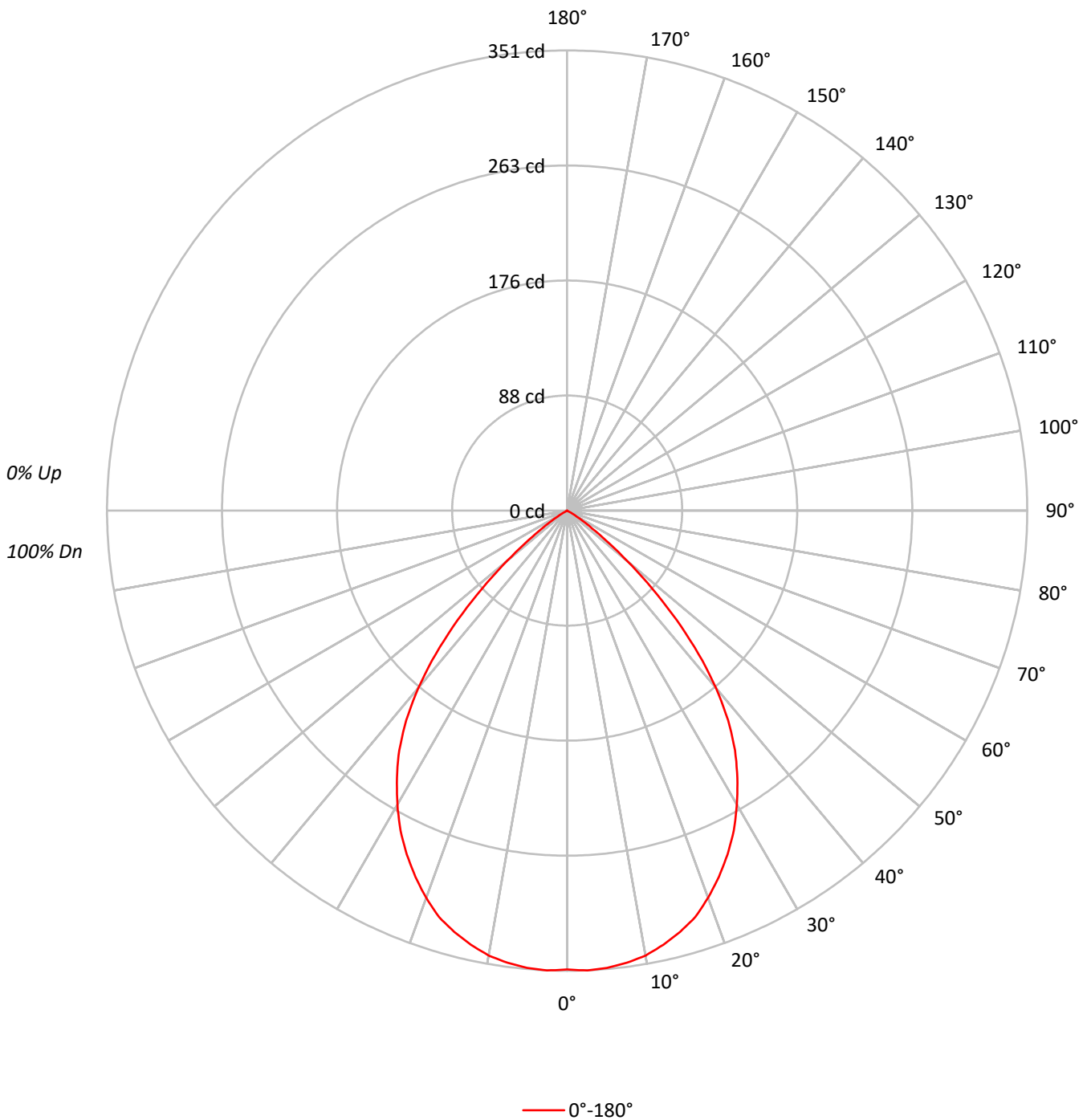
Lumens per Lamp: N/A  
Luminaire Lumens: 510.0 lumens  
Efficiency: N/A  
Efficacy: 39.2 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.15  
Luminous Opening: Circular (Dia: 0.29' x H: 0')  
CIE Type: Direct

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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	92	90	87	90	87	85	84
3	100	92	87	82	98	91	86	81	88	84	80	86	82	79	83	80	77	76
4	93	85	78	74	92	84	78	73	81	76	72	79	75	71	77	74	70	69
5	88	78	71	66	86	77	71	66	75	70	65	73	69	65	72	68	64	62
6	82	72	65	60	81	71	65	60	70	64	59	68	63	59	67	62	59	57
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52
8	73	62	55	50	71	61	55	50	60	54	50	59	54	50	58	53	49	48
9	69	57	51	46	67	57	50	46	56	50	46	55	50	46	54	49	46	44
10	65	54	47	43	64	53	47	43	52	46	42	51	46	42	51	46	42	41

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

	0°
0°	56402
5°	56618
10°	56373
15°	55490
20°	53885
25°	51443
30°	48181
35°	43917
40°	37161
45°	26907
50°	14938
55°	5786
60°	1063
65°	0
70°	0
75°	0
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.2	6.5
10°-20°	93.6	18.3
20°-30°	132.8	26.0
30°-40°	137.9	27.0
40°-50°	90.2	17.7
50°-60°	21.6	4.2
60°-70°	0.7	0.1
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°	259.6	50.9
0°-40°	397.5	77.9
0°-60°	509.4	99.9
0°-90°	510.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	510.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	350	
5°	350	33
15°	333	94
25°	289	133
35°	223	138
45°	118	90
55°	21	22
65°	0	1
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	350.1
2.5°	351.1
5°	350.1
7.5°	347.9
10°	344.6
12.5°	339.2
15°	332.7
17.5°	325.1
20°	314.3
22.5°	302.4
25°	289.4
27.5°	275.3
30°	259.0
32.5°	241.7
35°	223.3
37.5°	201.6
40°	176.7
42.5°	148.5
45°	118.1
47.5°	87.8
50°	59.6
52.5°	36.8
55°	20.6
57.5°	9.8
60°	3.3
62.5°	1.1
65°	0.0
67.5°	0.0
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)