

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: P123663

Luminaire Tested: **EL406935-TL410H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P123663  
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: EL406935-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, 3500K CCT, 90CRI  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

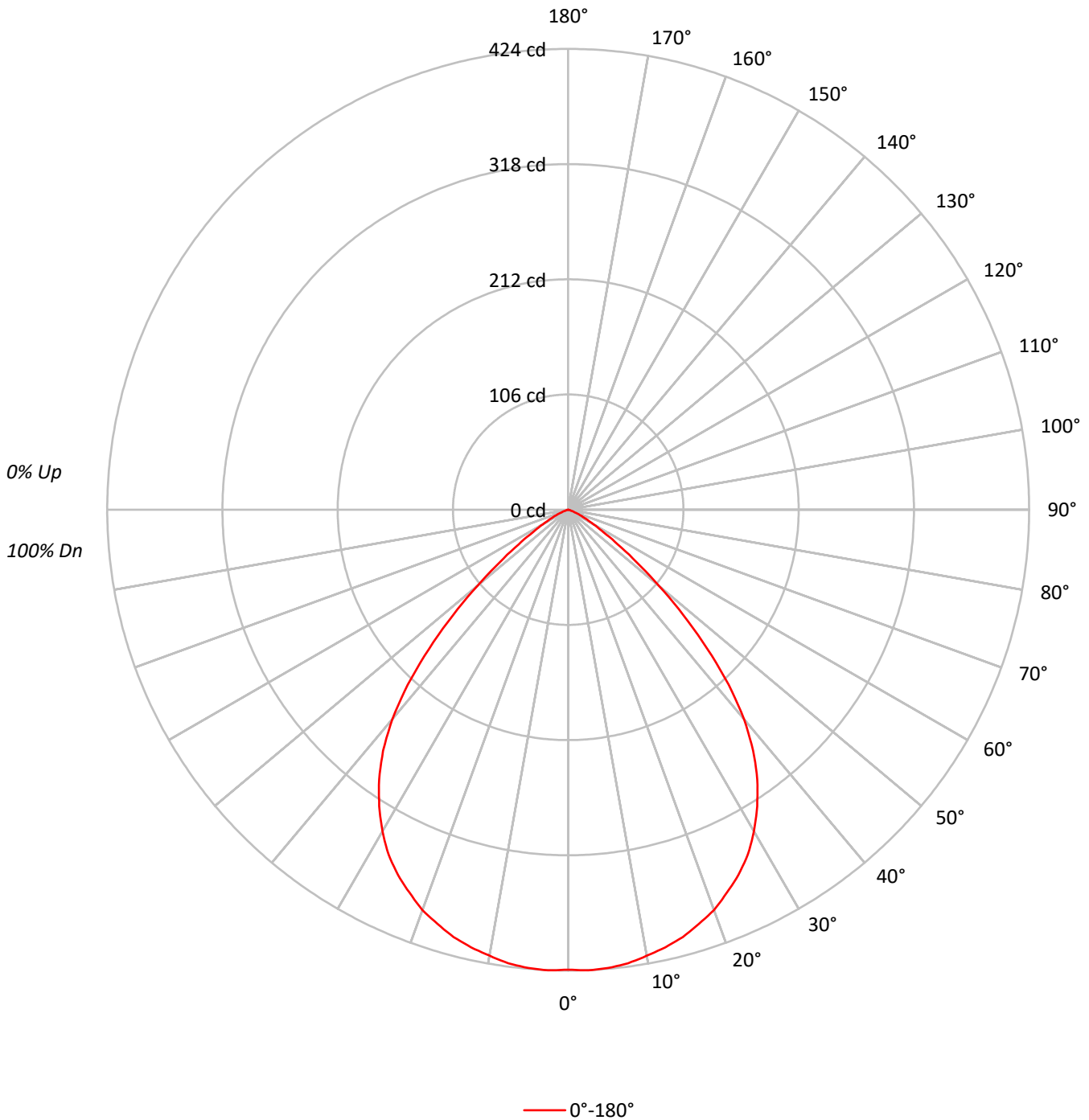
Lumens per Lamp: N/A  
Luminaire Lumens: 720.1 lumens  
Efficiency: N/A  
Efficacy: 55.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.22  
Luminous Opening: Circular (Dia: 0.29' x H: 0')  
CIE Type: Direct

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°	68179
5°	68440
10°	68168
15°	67899
20°	67223
25°	65895
30°	63584
35°	59631
40°	52955
45°	41261
50°	27394
55°	15645
60°	8635
65°	4918
70°	2025
75°	685
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.2	5.6
10°-20°	114.7	15.9
20°-30°	170.2	23.6
30°-40°	187.9	26.1
40°-50°	138.6	19.2
50°-60°	53.5	7.4
60°-70°	13.3	1.8
70°-80°	1.7	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°	325.1	45.2
0°-40°	513.0	71.2
0°-60°	705.1	97.9
0°-90°	720.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	720.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	423	
5°	423	40
15°	407	115
25°	371	170
35°	303	188
45°	181	139
55°	56	53
65°	13	13
75°	1	2
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	423.2
2.5°	424.2
5°	423.2
7.5°	421.0
10°	416.7
12.5°	412.5
15°	407.1
17.5°	399.6
20°	392.1
22.5°	381.4
25°	370.7
27.5°	357.8
30°	341.8
32.5°	323.5
35°	303.2
37.5°	279.6
40°	251.8
42.5°	218.5
45°	181.1
47.5°	143.6
50°	109.3
52.5°	79.3
55°	55.7
57.5°	38.6
60°	26.8
62.5°	18.2
65°	12.9
67.5°	7.5
70°	4.3
72.5°	2.1
75°	1.1
77.5°	1.1
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)