

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: P123698

Luminaire Tested: **EL406930-TL402SBKS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P123698  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13983)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: EL406930-TL402SBKS  
Description: HALO 4-INCH RECESSED LED DOWNLIGHT  
SPECULAR BLACK REFLECTOR, SOLITE® LENS AND WHITE TRIM RING  
Light Source: (1)SURFACE MOUNT LED, 3000K CCT, 90CRI  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 710.0 lumens  
Efficiency: N/A  
Efficacy: 54.6 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 0.71 / 0.86  
Luminous Opening: Circular (Dia: 0.29' x H: 0')  
CIE Type: Direct

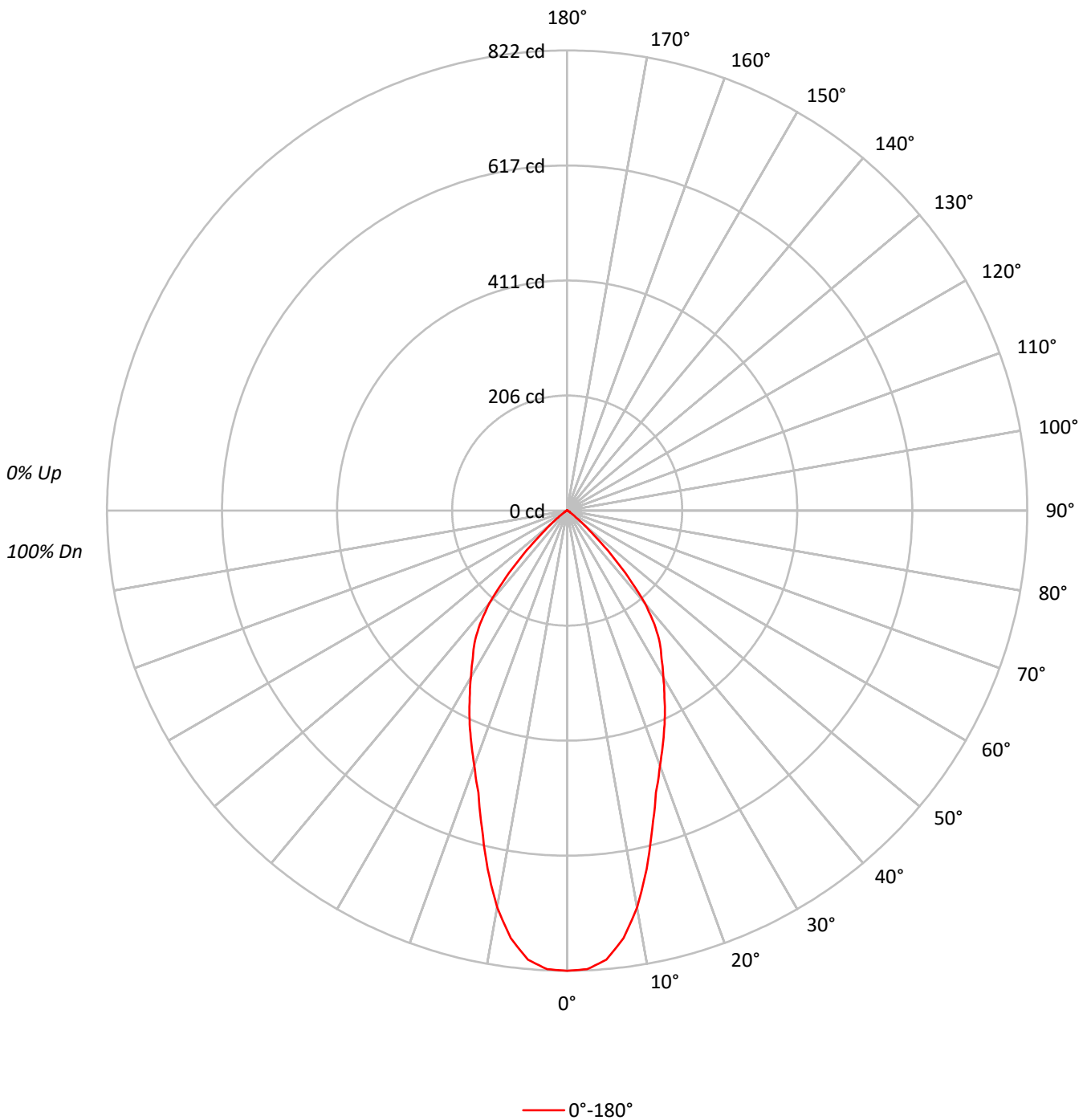
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	111	108	106	104	104	102	100		100	99	97		97	96	95	93
2	107	102	98	94	105	100	96	93	97	94	91		94	91	89		91	89	87	85
3	101	94	89	85	99	93	88	84	90	86	83		88	84	82		86	83	80	79
4	96	88	82	77	94	86	81	77	84	80	76		82	78	75		80	77	74	72
5	90	81	75	71	89	81	75	70	79	74	70		77	73	69		75	72	68	67
6	85	76	70	65	84	75	69	65	74	68	64		72	67	64		71	67	63	62
7	81	71	65	60	79	70	64	60	69	64	60		68	63	59		67	62	59	57
8	77	67	60	56	75	66	60	56	65	59	55		64	59	55		63	58	55	53
9	73	62	56	52	72	62	56	52	61	56	52		60	55	52		59	55	51	50
10	69	59	53	49	68	58	52	49	58	52	48		57	52	48		56	51	48	47

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

	0°
0°	132443
5°	130216
10°	117702
15°	97937
20°	83081
25°	73343
30°	63975
35°	56799
40°	45384
45°	25062
50°	9023
55°	3258
60°	1708
65°	1601
70°	518
75°	0
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.0	10.4
10°-20°	164.7	23.2
20°-30°	189.1	26.6
30°-40°	177.3	25.0
40°-50°	87.8	12.4
50°-60°	12.7	1.8
60°-70°	3.6	0.5
70°-80°	0.4	0.1
80°-90°	0.6	0.1
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°	427.9	60.3
0°-40°	605.2	85.2
0°-60°	705.6	99.4
0°-90°	710.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	710.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	822	
5°	805	74
15°	587	165
25°	413	189
35°	289	177
45°	110	88
55°	12	13
65°	4	4
75°	0	0
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	822.1
2.5°	820.0
5°	805.2
7.5°	770.2
10°	719.5
12.5°	656.0
15°	587.2
17.5°	528.0
20°	484.6
22.5°	447.5
25°	412.6
27.5°	376.7
30°	343.9
32.5°	314.2
35°	288.8
37.5°	256.0
40°	215.8
42.5°	161.9
45°	110.0
47.5°	65.6
50°	36.0
52.5°	20.1
55°	11.6
57.5°	5.3
60°	5.3
62.5°	5.3
65°	4.2
67.5°	2.1
70°	1.1
72.5°	1.1
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	1.1
90°	0.0

(END OF REPORT)