

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: P20351

Luminaire Tested: **EL405830-TL402SBKS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20351
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405830-TL402SBKS
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH SPECULAR BLACK FINISH
REFLECTOR AND PRISMATIC LENS IN TRIM EL405830-TL402SBKS
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

Lumens per Lamp: 566 (1 lamp)
Luminaire Lumens: 568.1 lumens
Efficiency: 100.4%
Efficacy: 40.6 lumens/watt
Spacing Criteria (0/90/45): 0.5 / 0.5 / 0.7
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

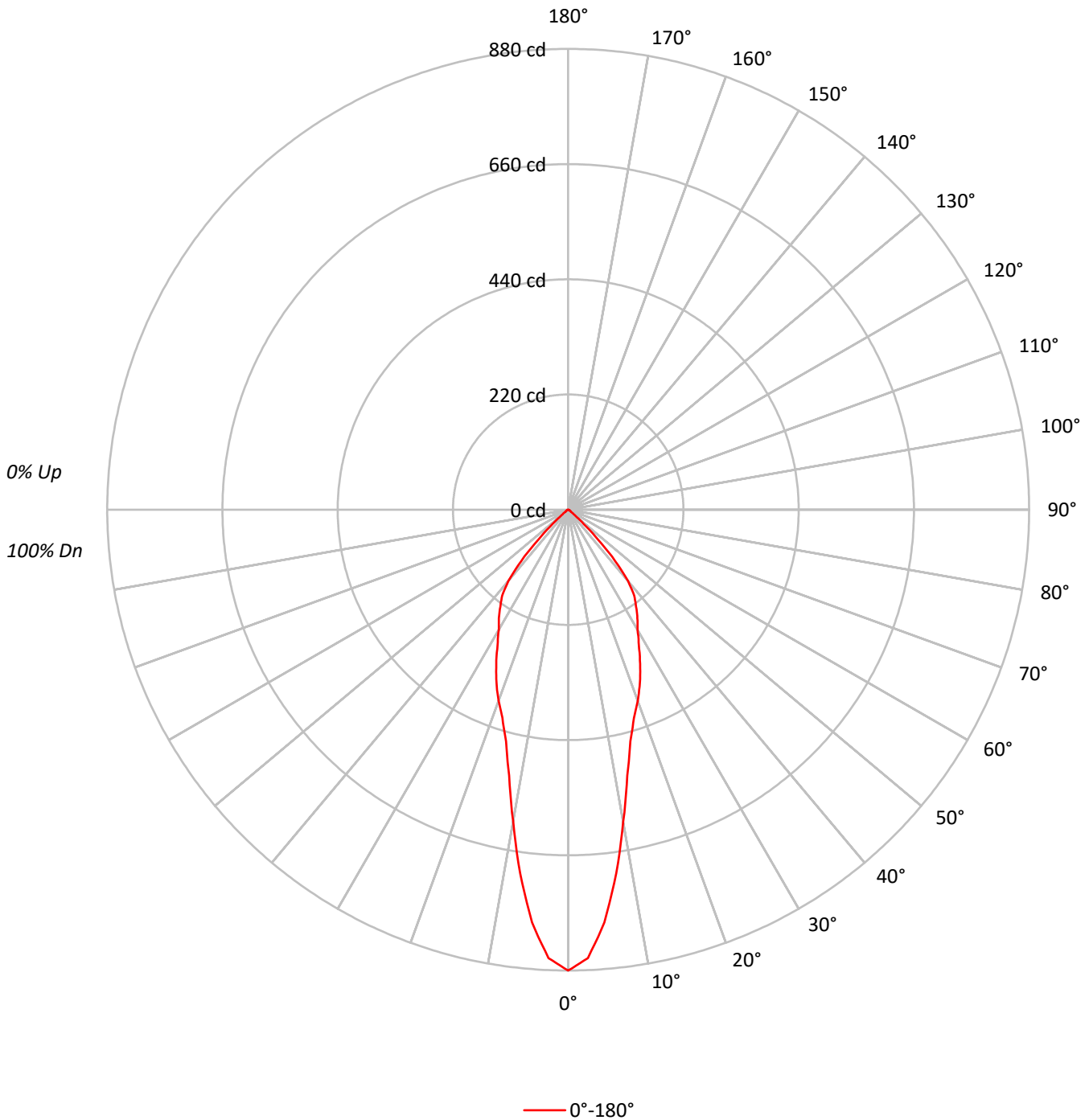
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	117	117	117	117	112	112	112		107	107	107		102	102	102	100
1	114	111	108	106	111	109	106	104	104	103	101		101	99	98		97	96	95	93
2	108	103	98	95	105	101	97	94	98	94	92		95	92	90		92	90	88	86
3	102	95	90	86	100	94	89	85	91	87	84		89	85	82		86	83	81	79
4	96	88	83	78	95	87	82	78	85	80	77		83	79	76		81	78	75	73
5	91	82	76	72	90	81	76	71	80	75	71		78	74	70		76	73	70	68
6	86	77	71	66	85	76	70	66	75	69	66		73	69	65		72	68	65	63
7	82	72	66	61	80	71	65	61	70	65	61		69	64	61		68	63	60	59
8	78	68	61	57	76	67	61	57	66	61	57		65	60	57		64	60	56	55
9	74	64	58	53	73	63	57	53	62	57	53		61	56	53		60	56	53	51
10	70	60	54	50	69	60	54	50	59	54	50		58	53	50		57	53	50	48

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	85250
5°	76921
10°	59514
15°	45934
20°	40000
25°	34739
30°	29643
35°	26727
40°	22510
45°	11097
50°	2562
55°	1013
60°	775
65°	688
70°	566
75°	374
80°	558
85°	1112



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	69.5	12.2	12.3
10°-20°	131.0	23.1	23.1
20°-30°	148.9	26.2	26.3
30°-40°	140.4	24.7	24.8
40°-50°	66.2	11.7	11.7
50°-60°	6.7	1.2	1.2
60°-70°	3.2	0.6	0.6
70°-80°	1.2	0.2	0.2
80°-90°	1.0	0.2	0.2
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	349.3	61.5	61.7
0°-40°	489.7	86.2	86.5
0°-60°	562.7	99.1	99.4
0°-90°	568.1	100.0	100.4
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	568.1	100.0	100.4

CANDELA DISTRIBUTION:

	0°	Flux
0°	880	
5°	791	69
15°	458	131
25°	325	149
35°	226	140
45°	81	66
55°	6	7
65°	3	3
75°	1	1
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	880
2.5°	857
5°	791
7.5°	701
10°	605
12.5°	520
15°	458
17.5°	417
20°	388
22.5°	358
25°	325
27.5°	292
30°	265
32.5°	246
35°	226
37.5°	207
40°	178
42.5°	133
45°	81
47.5°	40
50°	17
52.5°	9
55°	6
57.5°	5
60°	4
62.5°	4
65°	3
67.5°	3
70°	2
72.5°	1
75°	1
77.5°	1
80°	1
82.5°	1
85°	1
87.5°	1
90°	0

(END OF REPORT)