

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: P20340

Luminaire Tested: **EL405840-TL402SBKS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20340
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405840-TL402SBKS
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH SPECULAR BLACK FINISH
REFLECTOR AND PRISMATIC LENS IN TRIM EL405840-TL402SBKS
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

Lumens per Lamp: 566 (1 lamp)
Luminaire Lumens: 568.2 lumens
Efficiency: 100.4%
Efficacy: 40.9 lumens/watt
Spacing Criteria (0/90/45): 0.47 / 0.47 / 0.66
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

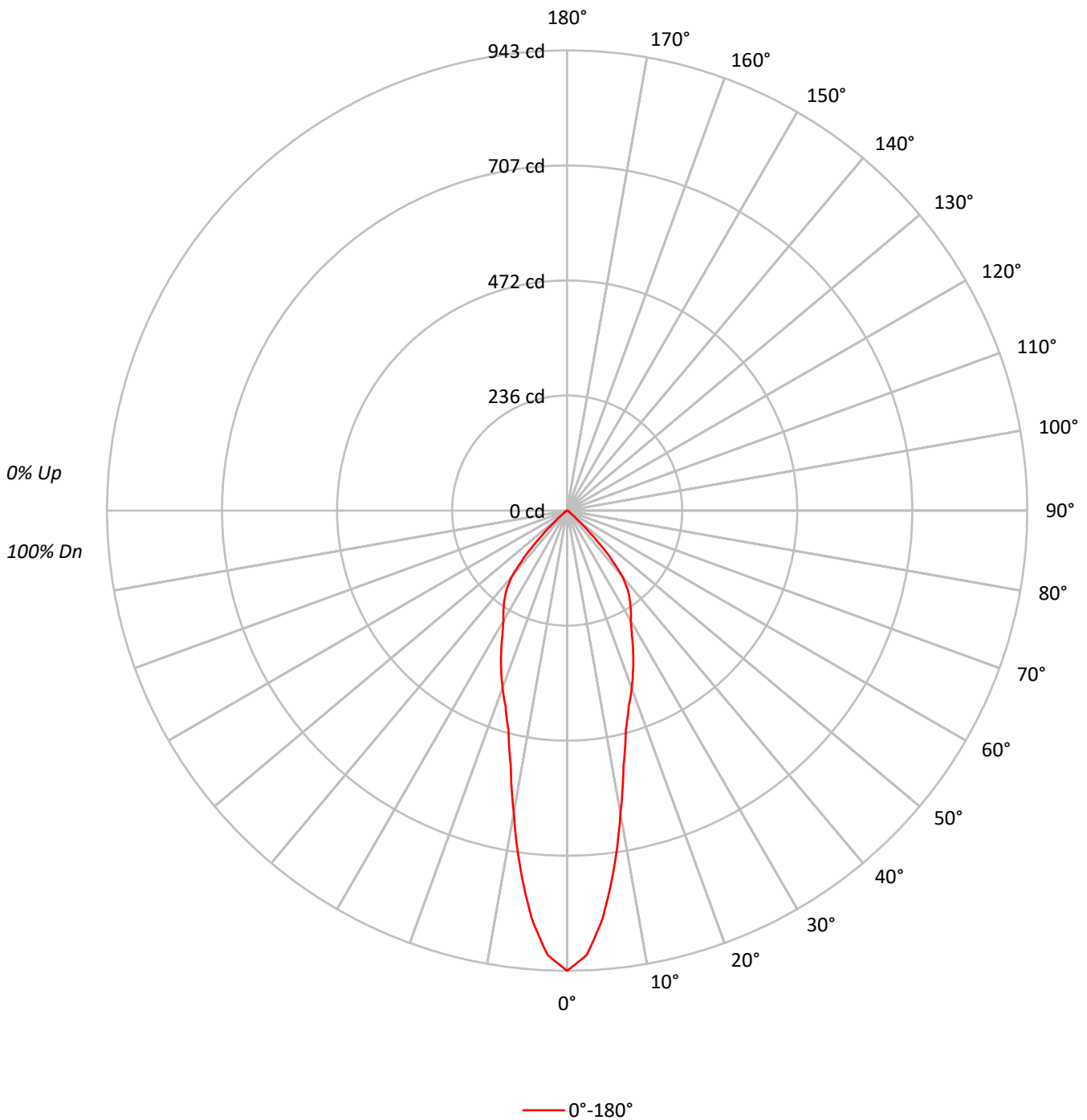
Input Watts (W): 13.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	120	120	120	120	117	117	117	117	112	112	112		107	107	107		102	102	102	100
1	114	111	108	106	111	109	106	104	105	103	101		101	99	98		97	96	95	93
2	108	103	98	95	106	101	97	94	98	95	92		95	92	90		92	90	88	86
3	102	95	90	86	100	94	89	85	91	87	84		89	85	83		87	84	81	80
4	97	89	83	79	95	88	82	78	85	81	77		83	79	76		81	78	75	74
5	91	83	77	72	90	82	76	72	80	75	71		78	74	71		77	73	70	68
6	87	77	71	67	85	77	71	66	75	70	66		74	69	66		72	68	65	64
7	82	73	66	62	81	72	66	62	71	65	61		69	65	61		68	64	61	59
8	78	68	62	58	77	68	62	58	67	61	57		65	61	57		64	60	57	55
9	74	64	58	54	73	64	58	54	63	57	54		62	57	54		61	57	53	52
10	71	61	55	51	70	60	55	51	59	54	51		59	54	50		58	53	50	49

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	91354
5°	81492
10°	61973
15°	46636
20°	39897
25°	34205
30°	29196
35°	26491
40°	22257
45°	10823
50°	2411
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°	73.3	12.9	12.9
10°-20°	133.2	23.4	23.5
20°-30°	146.8	25.8	25.9
30°-40°	138.7	24.4	24.5
40°-50°	64.6	11.4	11.4
50°-60°	6.4	1.1	1.1
60°-70°	3.0	0.5	0.5
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°	353.3	62.2	62.4
0°-40°	492.0	86.6	86.9
0°-60°	563.1	99.1	99.5
0°-90°	568.2	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°	568.2	100.0	100.4

CANDELA DISTRIBUTION:

	0°	Flux
0°	943	
5°	838	73
15°	465	133
25°	320	147
35°	224	139
45°	79	65
55°	6	6
65°	3	3
75°	1	1
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	943
2.5°	912
5°	838
7.5°	738
10°	630
12.5°	535
15°	465
17.5°	420
20°	387
22.5°	353
25°	320
27.5°	287
30°	261
32.5°	243
35°	224
37.5°	204
40°	176
42.5°	131
45°	79
47.5°	37
50°	16
52.5°	8
55°	6
57.5°	5
60°	4
62.5°	4
65°	3
67.5°	2
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)