

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: P20078

Luminaire Tested: **EL405835-TL402SCS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20078
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405835-TL402SCS
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH SPECULAR UPPER AND LOWER REFLECTORS IN TRIM WITH PRISMATIC LENS IN UNIT 1 LED MODULE EL405835
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

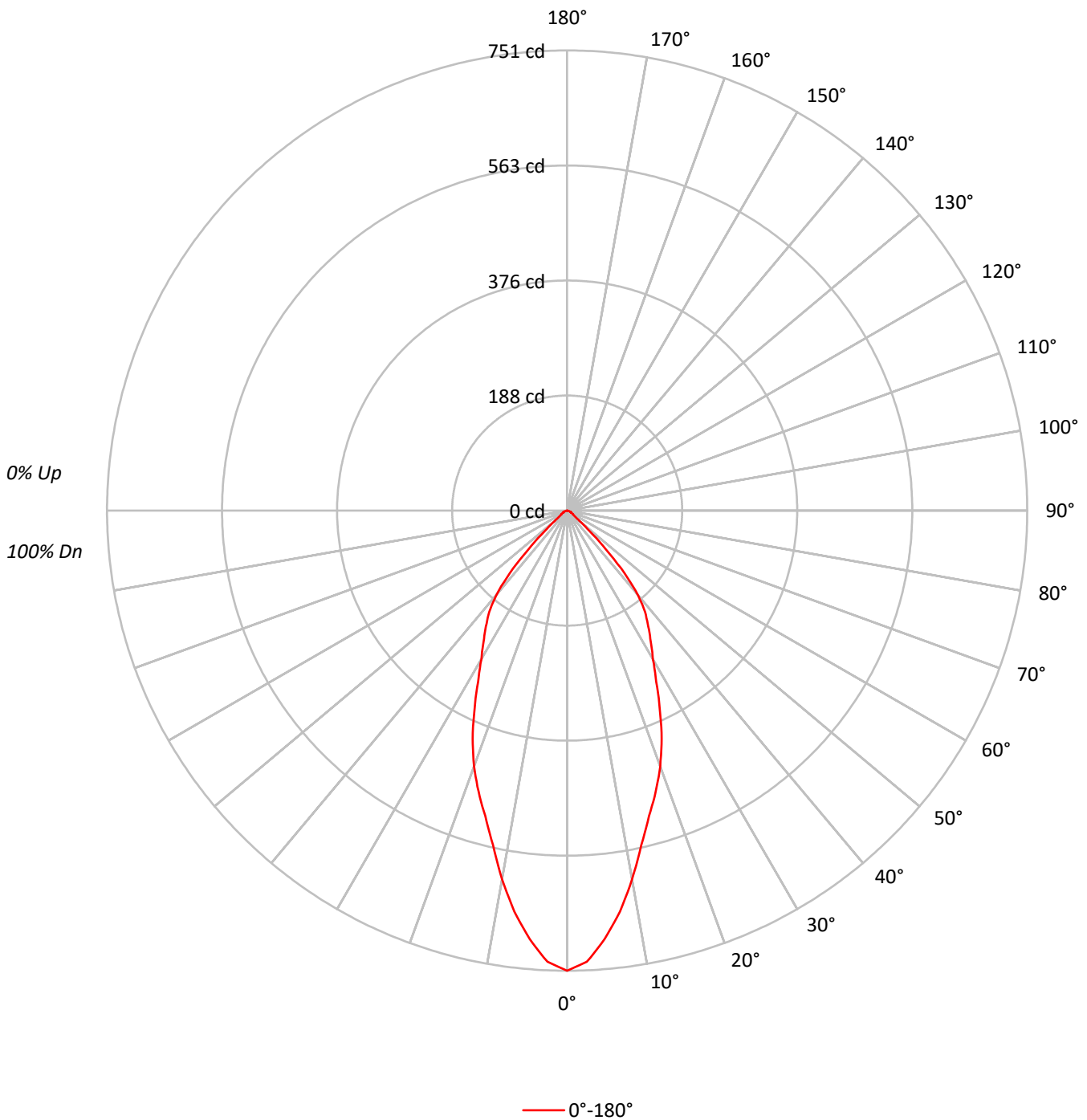
Lumens per Lamp: 612 (1 lamp)
Luminaire Lumens: 613.1 lumens
Efficiency: 100.2%
Efficacy: 43.5 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 0.71 / 0.8
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 14.1
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	116	116	116	116	111	111	111		107	107	107		102	102	102	100
1	113	110	108	105	111	108	106	103	104	102	100		100	99	97		97	96	94	93
2	107	102	97	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	81		85	82	80	78
4	96	87	81	77	94	86	81	76	84	79	76		82	78	75		80	77	74	72
5	90	81	75	70	89	80	74	70	78	73	69		77	72	69		75	71	68	67
6	85	76	69	65	84	75	69	65	73	68	64		72	67	64		71	66	63	62
7	81	71	64	60	79	70	64	60	69	63	59		68	63	59		66	62	59	57
8	77	66	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	53	49	58	52	48		57	52	48		56	51	48	47

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	92633
5°	86919
10°	76527
15°	65892
20°	58280
25°	48723
30°	39880
35°	34783
40°	28983
45°	15699
50°	4989
55°	2796
60°	2467
65°	2043
70°	1803
75°	953
80°	710
85°	1415



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	64.2	10.5	10.5
10°-20°	145.3	23.7	23.7
20°-30°	164.1	26.8	26.8
30°-40°	143.9	23.5	23.5
40°-50°	72.0	11.7	11.8
50°-60°	12.9	2.1	2.1
60°-70°	7.0	1.1	1.2
70°-80°	2.6	0.4	0.4
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°	373.6	60.9	61.0
0°-40°	517.5	84.4	84.6
0°-60°	602.4	98.3	98.4
0°-90°	613.1	100.0	100.2
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°	613.1	100.0	100.2

CANDELA DISTRIBUTION:

	0°	Flux
0°	751	
5°	702	64
15°	516	145
25°	358	164
35°	231	144
45°	90	72
55°	13	13
65°	7	7
75°	2	3
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	751
2.5°	737
5°	702
7.5°	660
10°	611
12.5°	559
15°	516
17.5°	481
20°	444
22.5°	403
25°	358
27.5°	315
30°	280
32.5°	254
35°	231
37.5°	209
40°	180
42.5°	139
45°	90
47.5°	49
50°	26
52.5°	16
55°	13
57.5°	11
60°	10
62.5°	8
65°	7
67.5°	6
70°	5
72.5°	4
75°	2
77.5°	1
80°	1
82.5°	1
85°	1
87.5°	1
90°	0

(END OF REPORT)