

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: P20063

Luminaire Tested: **EL405827-TL402SCS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20063
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405827-TL402SCS
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH SPECULAR UPPER AND LOWER REFLECTORS IN TRIM WITH PRISMATIC LENS IN UNIT 1 LED MODULE EL405827
Light Source: (1)SURFACE MOUNT LED CL221 14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

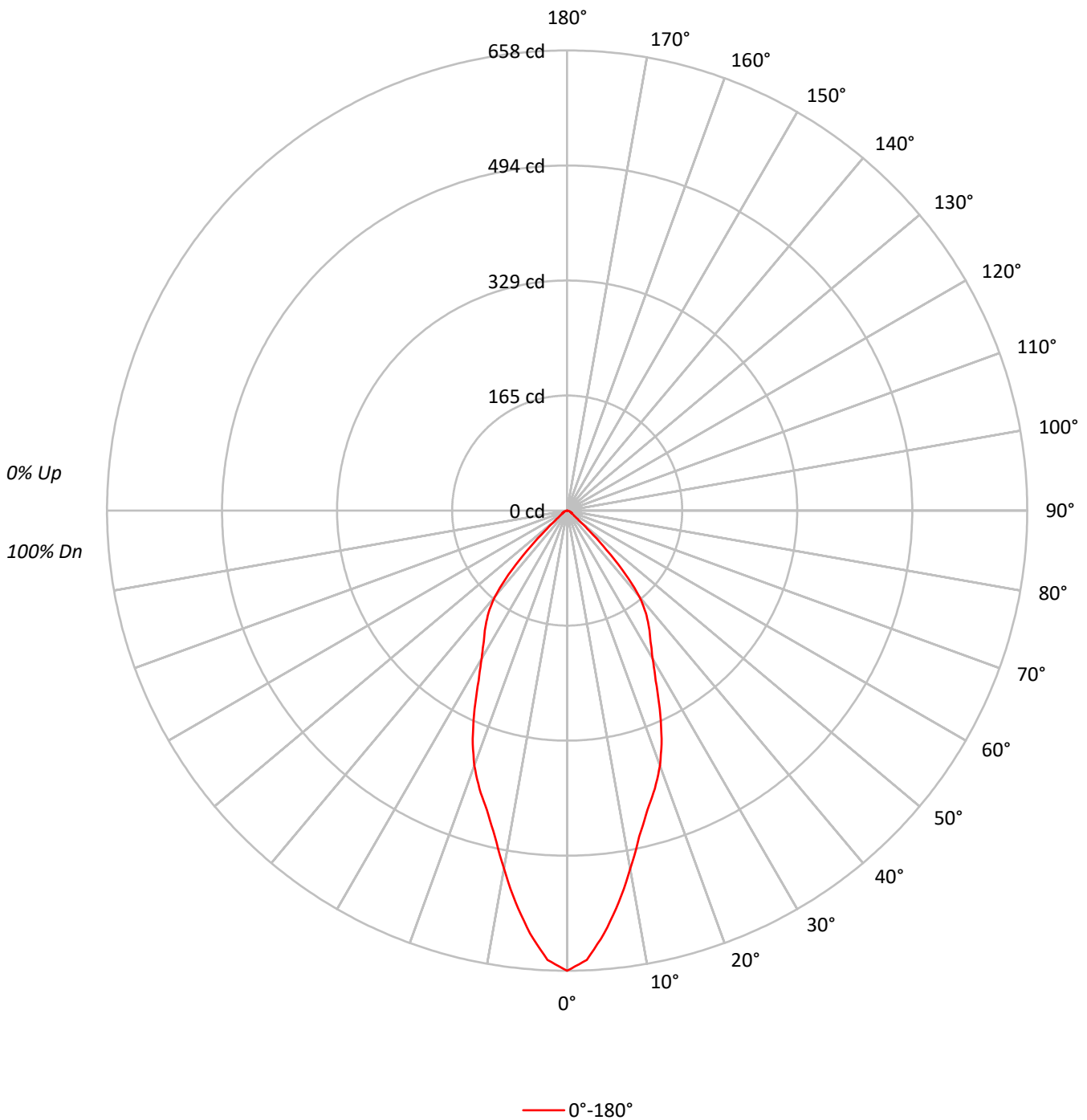
Lumens per Lamp: 533 (1 lamp)
Luminaire Lumens: 534.8 lumens
Efficiency: 100.3%
Efficacy: 37.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 0.71 / 0.8
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	117	117	117	117	111	111	111		107	107	107		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	81		85	82	80	78
4	96	87	81	77	94	86	81	76	84	79	75		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	55	65	59	55		64	59	55		63	58	55	53
9	73	62	56	52	72	62	56	52	61	55	52		60	55	51		59	55	51	50
10	69	59	53	48	68	58	52	48	57	52	48		57	52	48		56	51	48	47

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	81161
5°	75157
10°	65129
15°	56570
20°	50930
25°	42598
30°	34752
35°	30718
40°	25924
45°	13955
50°	4414
55°	2366
60°	1974
65°	1751
70°	1443
75°	953
80°	710
85°	1415



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	55.2	10.3	10.4
10°-20°	125.1	23.4	23.5
20°-30°	143.3	26.8	26.9
30°-40°	126.8	23.7	23.8
40°-50°	64.1	12.0	12.0
50°-60°	11.0	2.1	2.1
60°-70°	5.9	1.1	1.1
70°-80°	2.5	0.5	0.5
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°	323.6	60.5	60.7
0°-40°	450.4	84.2	84.5
0°-60°	525.5	98.2	98.6
0°-90°	534.8	100.0	100.3
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°	534.8	100.0	100.3

CANDELA DISTRIBUTION:

	0°	Flux
0°	658	
5°	607	55
15°	443	125
25°	313	143
35°	204	127
45°	80	64
55°	11	11
65°	6	6
75°	2	2
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	658
2.5°	643
5°	607
7.5°	565
10°	520
12.5°	477
15°	443
17.5°	417
20°	388
22.5°	353
25°	313
27.5°	274
30°	244
32.5°	222
35°	204
37.5°	185
40°	161
42.5°	124
45°	80
47.5°	43
50°	23
52.5°	14
55°	11
57.5°	9
60°	8
62.5°	7
65°	6
67.5°	5
70°	4
72.5°	4
75°	2
77.5°	1
80°	1
82.5°	1
85°	1
87.5°	1
90°	0

(END OF REPORT)