

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: P20064

Luminaire Tested: **EL405827-TL402WHS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20064
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405827-TL402WHS
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH WHITE PAINTED REFLECTOR IN TRIM WITH PRISMATIC LENS IN UNIT 1 LED MODULE EL405827
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

Lumens per Lamp: 538 (1 lamp)
Luminaire Lumens: 539.2 lumens
Efficiency: 100.2%
Efficacy: 38.2 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.84
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

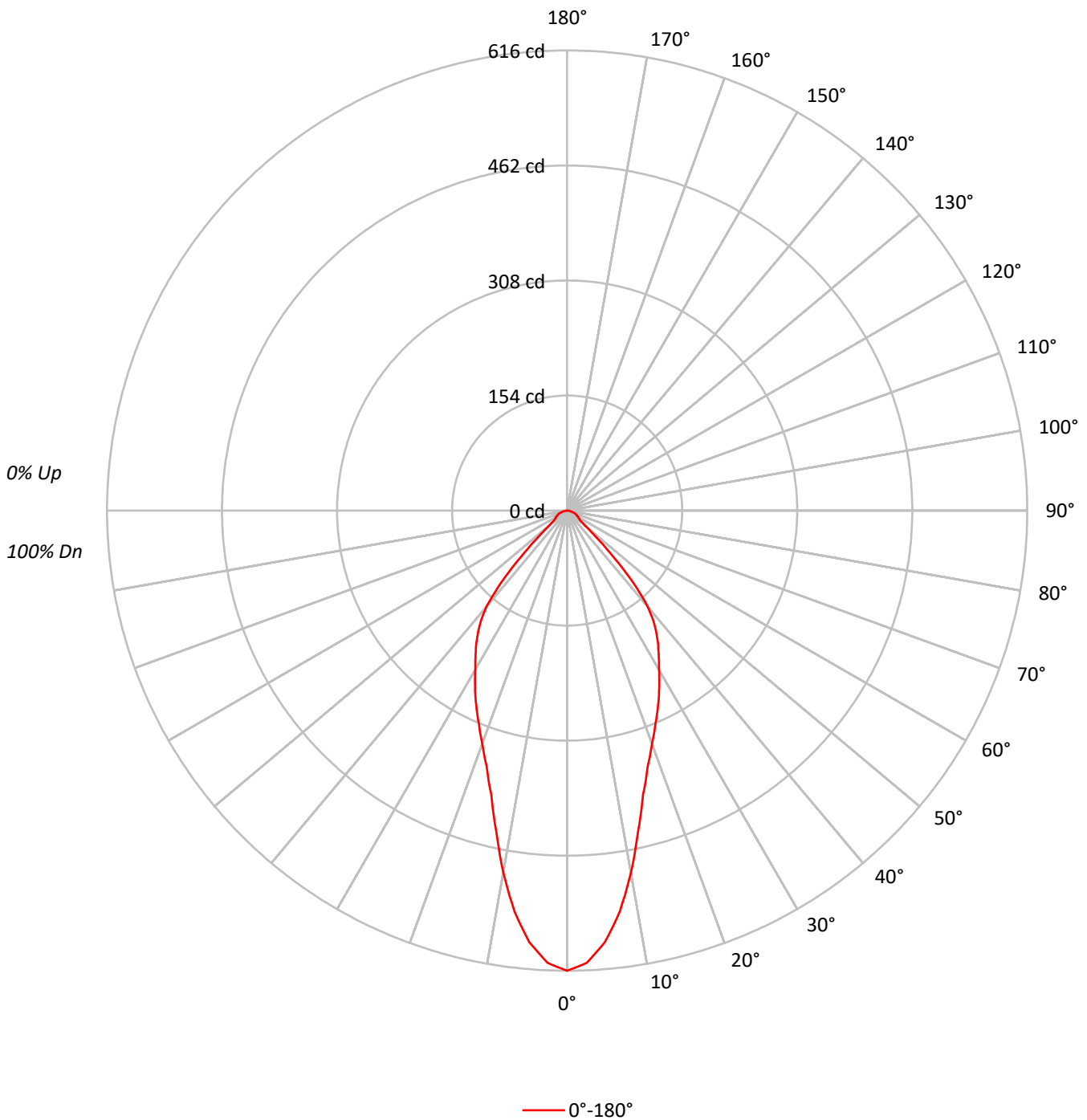
Input Watts (W): 14.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0
RCR																					
0	119	119	119	119	117	117	117	117	111	111	111	107	107	107	102	102	102	100			100
1	113	109	107	104	110	107	105	102	103	101	99	99	98	96	96	95	93	92			92
2	106	100	96	92	104	99	94	91	95	92	89	92	89	87	89	87	85	83			83
3	100	92	86	82	98	91	85	81	88	84	80	86	82	79	83	80	77	76			76
4	94	85	79	74	92	84	78	73	82	77	72	80	75	72	78	74	71	69			69
5	88	79	72	67	87	78	71	67	76	70	66	74	69	66	72	68	65	63			63
6	83	73	66	61	82	72	66	61	71	65	61	69	64	60	68	63	60	58			58
7	79	68	61	57	77	67	61	56	66	60	56	65	60	56	64	59	55	54			54
8	74	64	57	52	73	63	57	52	62	56	52	61	56	52	60	55	51	50			50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	51	48	46			46
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	43			43

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	75981
5°	71814
10°	61622
15°	50185
20°	43579
25°	39196
30°	35037
35°	31772
40°	27051
45°	15350
50°	6141
55°	4301
60°	4194
65°	4086
70°	3967
75°	3336
80°	2131
85°	2830



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	52.6	9.7	9.8
10°-20°	111.3	20.6	20.7
20°-30°	132.3	24.5	24.6
30°-40°	130.7	24.2	24.3
40°-50°	70.3	13.0	13.1
50°-60°	19.1	3.5	3.5
60°-70°	13.9	2.6	2.6
70°-80°	7.4	1.4	1.4
80°-90°	1.8	0.3	0.3
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°	296.1	54.9	55.0
0°-40°	426.8	79.2	79.3
0°-60°	516.2	95.7	95.9
0°-90°	539.2	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°	539.2	100.0	100.2

CANDELA DISTRIBUTION:

	0°	Flux
0°	616	
5°	580	53
15°	393	111
25°	288	132
35°	211	131
45°	88	70
55°	20	19
65°	14	14
75°	7	7
85°	2	2
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	616
2.5°	606
5°	580
7.5°	541
10°	492
12.5°	439
15°	393
17.5°	359
20°	332
22.5°	309
25°	288
27.5°	267
30°	246
32.5°	228
35°	211
37.5°	192
40°	168
42.5°	131
45°	88
47.5°	52
50°	32
52.5°	23
55°	20
57.5°	18
60°	17
62.5°	15
65°	14
67.5°	13
70°	11
72.5°	9
75°	7
77.5°	5
80°	3
82.5°	2
85°	2
87.5°	1
90°	0

(END OF REPORT)