

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: P20058

Luminaire Tested: **EL405827-TL402HS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20058
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405827-TL402HS
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH HAZE SEMI-SPECULAR REFLECTOR AND PRISMATIC LENS IN TRIM UNIT 1 LED MODULE EL405827
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

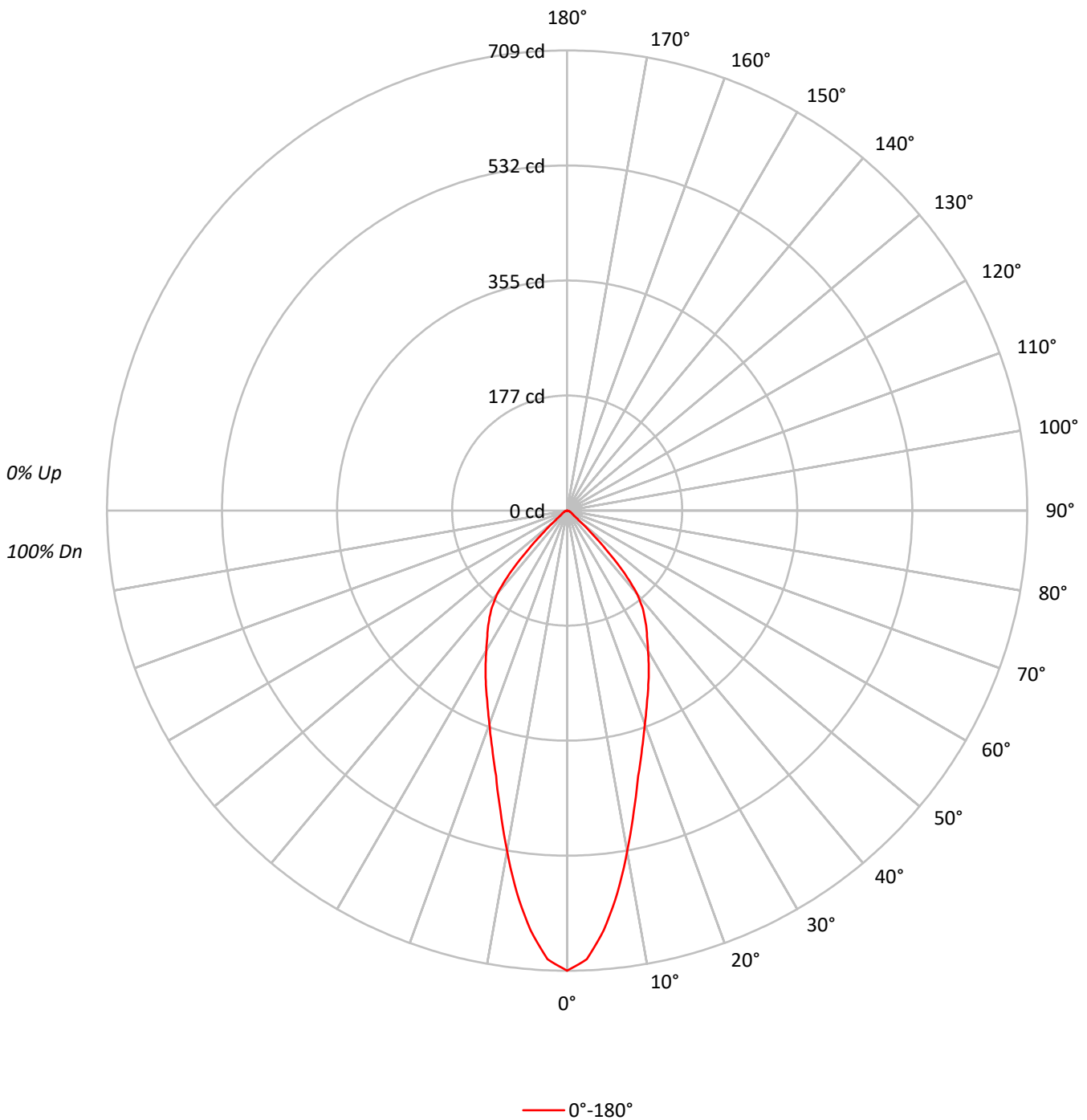
Lumens per Lamp: 531 (1 lamp)
Luminaire Lumens: 533.3 lumens
Efficiency: 100.4%
Efficacy: 0.5 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.59 / 0.77
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 999
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	120	120	120	120	117	117	117	117	112	112	112		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	84	99	93	88	84	90	86	82		88	84	81		85	82	80	78
4	96	87	81	77	94	86	81	76	84	79	75		82	78	74		80	76	74	72
5	90	81	75	70	89	80	74	70	78	73	69		77	72	69		75	71	68	66
6	85	76	69	64	84	75	69	64	73	68	64		72	67	63		70	66	63	61
7	81	71	64	60	79	70	64	59	69	63	59		67	62	59		66	62	58	57
8	76	66	60	55	75	66	59	55	64	59	55		63	58	55		62	58	54	53
9	73	62	56	52	71	62	56	51	61	55	51		60	55	51		59	54	51	49
10	69	59	52	48	68	58	52	48	57	52	48		56	51	48		56	51	48	46

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	87452
5°	80357
10°	66757
15°	54016
20°	45942
25°	40285
30°	35464
35°	31772
40°	27051
45°	14827
50°	4605
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°	58.3	10.9	11.0
10°-20°	119.4	22.4	22.5
20°-30°	136.2	25.5	25.6
30°-40°	131.0	24.6	24.7
40°-50°	67.7	12.7	12.7
50°-60°	11.5	2.2	2.2
60°-70°	5.9	1.1	1.1
70°-80°	2.2	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°	313.9	58.9	59.1
0°-40°	444.9	83.4	83.8
0°-60°	524.1	98.3	98.7
0°-90°	533.3	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°	533.3	100.0	100.4

CANDELA DISTRIBUTION:

	0°	Flux
0°	709	
5°	649	58
15°	423	119
25°	296	136
35°	211	131
45°	85	68
55°	11	12
65°	6	6
75°	2	2
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	709
2.5°	692
5°	649
7.5°	594
10°	533
12.5°	474
15°	423
17.5°	384
20°	350
22.5°	321
25°	296
27.5°	272
30°	249
32.5°	229
35°	211
37.5°	192
40°	168
42.5°	131
45°	85
47.5°	46
50°	24
52.5°	15
55°	11
57.5°	10
60°	8
62.5°	7
65°	6
67.5°	5
70°	4
72.5°	3
75°	2
77.5°	1
80°	1
82.5°	1
85°	1
87.5°	1
90°	0

(END OF REPORT)