

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: P20353

Luminaire Tested: **EL405827-TL400SN**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P20353
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405827-TL400SN
Description: HALO 4 INCH RECESSED LED DOWNLIGHT WITH SATIN NICKEL FINISH
REFLECTOR EL405827-TL400SN
Light Source: (1)SURFACE MOUNT LED
14 WATTS
Ballast/Driver: 120 VOLT ELECTRONIC DRIVER

Summary

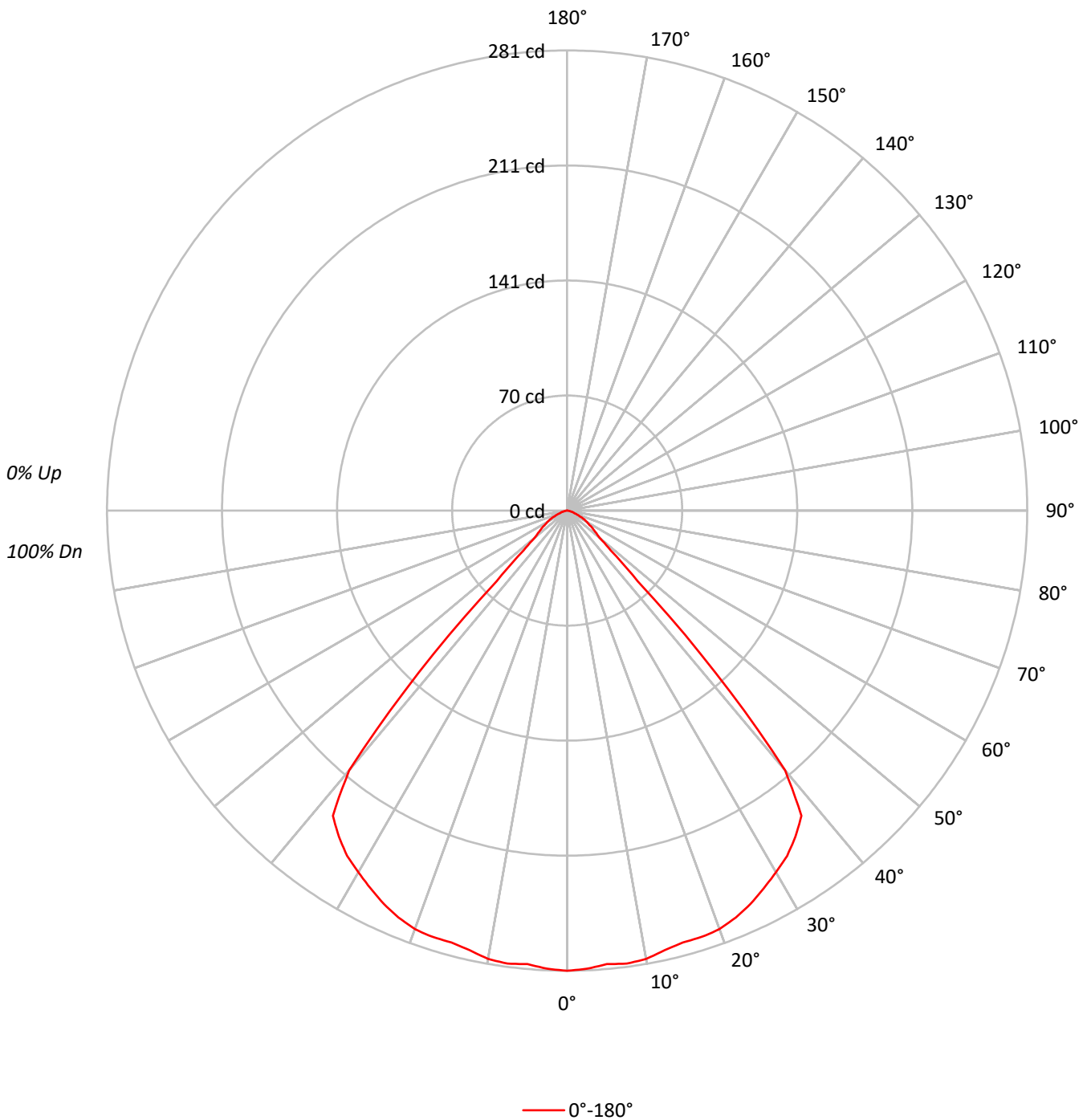
Lumens per Lamp: 471 (1 lamp)
Luminaire Lumens: 471.7 lumens
Efficiency: 100.2%
Efficacy: 34.2 lumens/watt
Spacing Criteria (0/90/45): 1.35 / 1.35 / 1.25
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 13.8
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	119	119	119	119	116	116	116	116	111	111	111		107	107	107		102	102	102	100
1	113	109	106	104	110	107	105	102	103	101	99		99	98	96		96	94	93	91
2	106	100	95	91	103	98	94	90	95	91	88		92	89	86		89	87	84	83
3	99	91	85	81	97	90	84	80	87	83	79		85	81	78		82	79	76	75
4	93	84	77	72	91	83	76	72	80	75	71		78	74	70		76	72	69	67
5	87	77	70	65	85	76	69	65	74	68	64		72	67	63		71	66	63	61
6	81	71	64	59	80	70	63	59	68	62	58		67	62	58		65	61	57	56
7	76	65	58	53	75	65	58	53	63	57	53		62	57	53		61	56	52	51
8	72	61	54	49	70	60	53	49	59	53	48		58	52	48		57	52	48	46
9	68	56	49	45	66	56	49	45	55	49	44		54	48	44		53	48	44	43
10	64	52	46	41	63	52	45	41	51	45	41		50	45	41		49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	27222
5°	27034
10°	27347
15°	27380
20°	28041
25°	28326
30°	28525
35°	28738
40°	26178
45°	8357
50°	3918
55°	3209
60°	2713
65°	2063
70°	1416
75°	1123
80°	558
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	26.6	5.6	5.6
10°-20°	77.6	16.4	16.5
20°-30°	122.1	25.9	25.9
30°-40°	150.1	31.8	31.9
40°-50°	65.3	13.8	13.9
50°-60°	17.2	3.6	3.6
60°-70°	9.2	2.0	2.0
70°-80°	3.2	0.7	0.7
80°-90°	0.4	0.1	0.1
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°	226.3	48.0	48.1
0°-40°	376.4	79.8	79.9
0°-60°	458.9	97.3	97.4
0°-90°	471.7	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°	471.7	100.0	100.2

CANDELA DISTRIBUTION:

	0°	Flux
0°	281	
5°	278	27
15°	273	78
25°	265	122
35°	243	150
45°	61	65
55°	19	17
65°	9	9
75°	3	3
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	281
2.5°	280
5°	278
7.5°	279
10°	278
12.5°	275
15°	273
17.5°	273
20°	272
22.5°	269
25°	265
27.5°	260
30°	255
32.5°	250
35°	243
37.5°	235
40°	207
42.5°	134
45°	61
47.5°	36
50°	26
52.5°	22
55°	19
57.5°	16
60°	14
62.5°	12
65°	9
67.5°	7
70°	5
72.5°	4
75°	3
77.5°	2
80°	1
82.5°	1
85°	0
87.5°	0
90°	0

(END OF REPORT)