

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: P85103

Luminaire Tested: **ELG405827SN (25deg Beam-0deg tilt)**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P85103
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P21162)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ELG405827SN (25deg Beam-0deg tilt)
Description: HALO 4 INCH RECESSED FIXTURE WITH ROUND TUSCAN BRONZE(SN) TRIM,
TUSCAN BRONZE(SN) GIMBAL, NARROW UPPER REFLECTOR AND CLEAR LENS .
---ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS
CREATED USING A 500 WATT, NIST TRACEABLE, OMNI-DIRECTIONAL
LAB LUMEN STANDARD IN THE GONIOPHOTOMETER WITH TEST DISTANCE
OF 28.75 FEET----
Light Source: (1) SMT LED 2700K
(1) 221 14 WATTS
Ballast/Driver: ELECTRONIC DRIVER

Summary

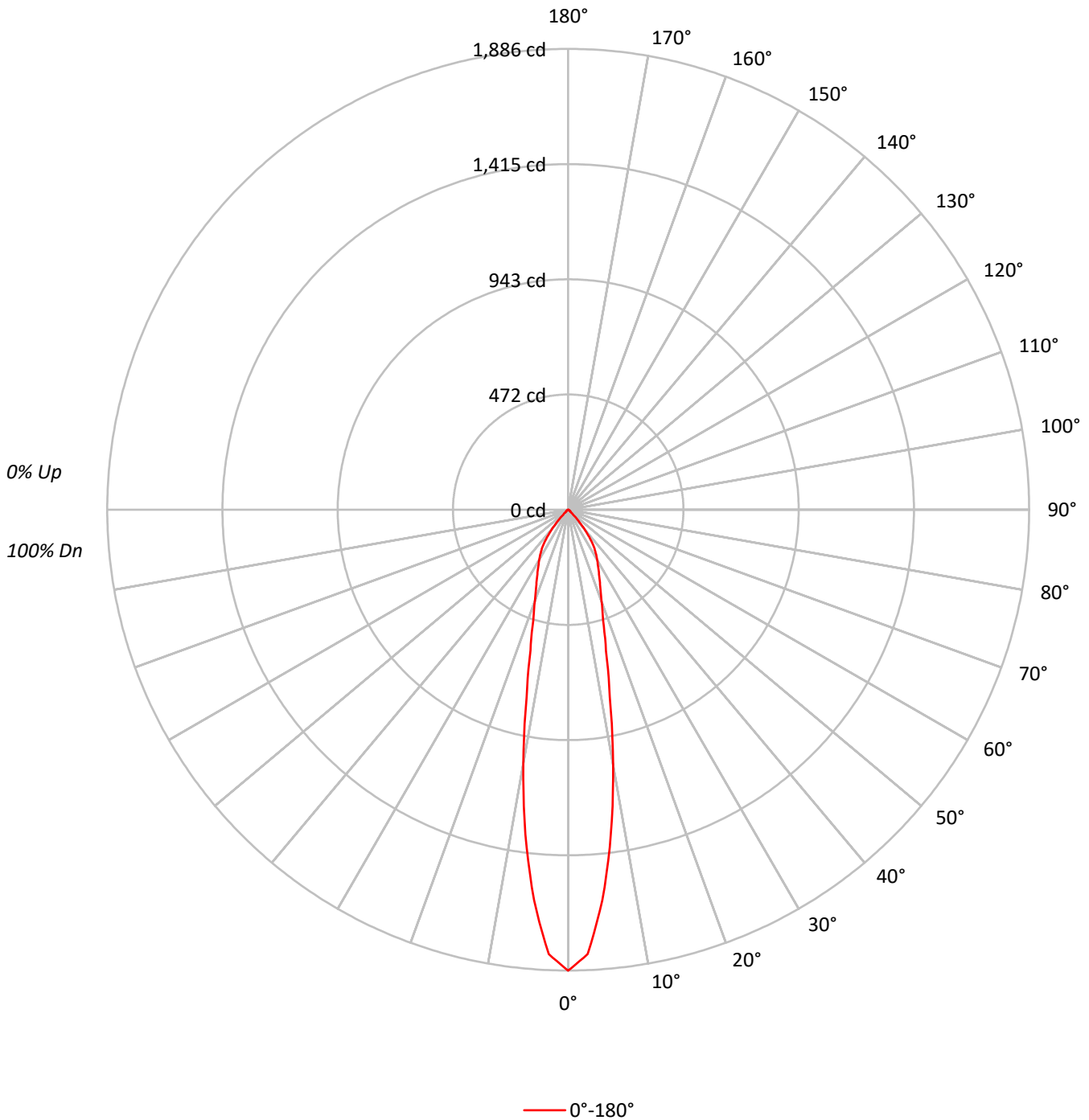
Lumens per Lamp: 598 (1 lamp)
Luminaire Lumens: 598.2 lumens
Efficiency: 100.0%
Efficacy: 43.7 lumens/watt
Spacing Criteria (0/90/45): 0.37 / 0.37 / 0.41
Luminous Opening: Vertical Cylinder (Dia: 0.33' x H: 0.1')
CIE Type: Direct

Input Watts (W): 13.7
Input Voltage (V): NR
Input Current (Ain): 0.11966
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	106	106	106	102	102	102	100
1	114	111	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	94
2	109	104	101	98	107	103	99	97	100	97	94	97	94	92	94	92	91	89
3	104	98	94	90	102	97	93	89	94	91	88	92	89	87	90	87	85	84
4	100	93	88	84	98	92	87	83	89	86	82	88	84	81	86	83	81	79
5	95	88	82	79	94	87	82	78	85	81	78	83	80	77	82	79	76	75
6	91	83	78	74	90	82	77	74	81	77	73	80	76	73	78	75	72	71
7	87	79	74	70	86	78	73	70	77	73	69	76	72	69	75	71	69	67
8	84	75	70	66	83	75	70	66	74	69	66	73	69	66	72	68	65	64
9	81	72	67	63	80	72	67	63	71	66	63	70	66	63	69	65	62	61
10	78	69	64	60	77	69	64	60	68	63	60	67	63	60	66	63	60	59

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	232692
5°	192288
10°	124128
15°	69041
20°	45969
25°	34691
30°	27598
35°	21515
40°	12474
45°	3673
50°	1609
55°	1044
60°	416
65°	305
70°	158
75°	177
80°	202
85°	237



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	135.7	22.7	22.7
10°-20°	173.8	29.1	29.1
20°-30°	139.5	23.3	23.3
30°-40°	108.7	18.2	18.2
40°-50°	30.8	5.2	5.2
50°-60°	6.2	1.0	1.0
60°-70°	1.9	0.3	0.3
70°-80°	1.0	0.2	0.2
80°-90°	0.6	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°	449.0	75.1	75.1
0°-40°	557.7	93.2	93.3
0°-60°	594.8	99.4	99.5
0°-90°	598.2	100.0	100.0
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°	598.2	100.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1886	
5°	1605	136
15°	596	174
25°	300	140
35°	181	109
45°	29	31
55°	8	6
65°	2	2
75°	1	1
85°	1	1
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	1886.5
2.5°	1820.8
5°	1604.9
7.5°	1339.3
10°	1057.8
12.5°	785.6
15°	596.0
17.5°	474.0
20°	398.9
22.5°	341.6
25°	300.3
27.5°	264.7
30°	236.5
32.5°	209.3
35°	181.1
37.5°	142.7
40°	102.3
42.5°	62.9
45°	29.1
47.5°	15.0
50°	12.2
52.5°	9.4
55°	7.5
57.5°	3.8
60°	2.8
62.5°	1.9
65°	1.9
67.5°	1.9
70°	0.9
72.5°	0.9
75°	0.9
77.5°	0.9
80°	0.9
82.5°	0.9
85°	0.9
87.5°	0.0
90°	0.0

(END OF REPORT)