

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: P85061

Luminaire Tested: **ELG405835TBZ(35deg Beam-0deg tilt)**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P85061
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P21163)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ELG405835TBZ(35deg Beam-0deg tilt)
Description: HALO 4 INCH RECESSED FIXTURE WITH ROUND TUSCAN BRONZE TRIM,
TUSCAN BRONZE GIMBAL, MEDIUM 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 3500K
(1) 221 14 WATTS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: 641 (1 lamp)
Luminaire Lumens: 640.9 lumens
Efficiency: 100.0%
Efficacy: 47.1 lumens/watt
Spacing Criteria (0/90/45): 0.54 / 0.54 / 0.55
Luminous Opening: Vertical Cylinder (Dia: 0.33' x H: 0.1')
CIE Type: Direct

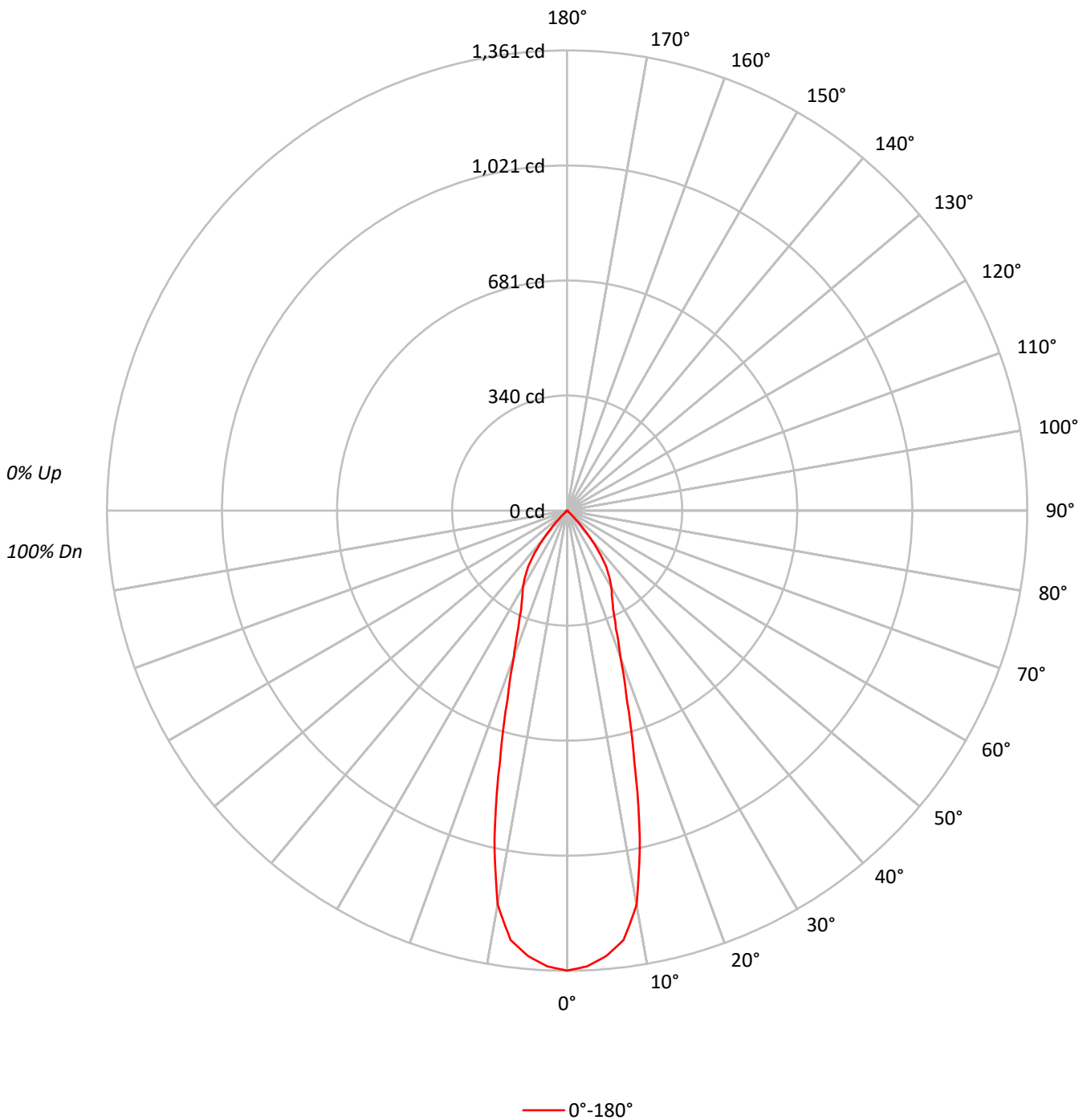
Input Watts (W): 13.6
Input Voltage (V): NR
Input Current (Ain): 0.11948
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	95
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89
3	104	98	94	90	102	97	93	90	94	91	88	92	89	87	90	87	85	84
4	100	93	88	84	98	92	87	83	90	86	83	88	84	82	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	76	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	68	65	72	68	65	64
9	80	72	66	63	79	71	66	63	70	66	63	70	65	62	69	65	62	61
10	77	69	63	60	76	68	63	60	67	63	60	67	62	59	66	62	59	58

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	167836
5°	158488
10°	138772
15°	89012
20°	53206
25°	37140
30°	30503
35°	23665
40°	13364
45°	3055
50°	554
55°	445
60°	163
65°	176
70°	194
75°	0
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	122.3	19.1	19.1
10°-20°	213.8	33.4	33.4
20°-30°	153.3	23.9	23.9
30°-40°	119.3	18.6	18.6
40°-50°	28.2	4.4	4.4
50°-60°	2.5	0.4	0.4
60°-70°	1.1	0.2	0.2
70°-80°	0.4	0.1	0.1
80°-90°	0.0	0.0	0.0
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°	489.4	76.4	76.3
0°-40°	608.7	95.0	95.0
0°-60°	639.4	99.8	99.7
0°-90°	640.9	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°	640.9	100.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	1361	
5°	1323	122
15°	768	214
25°	322	153
35°	199	119
45°	24	28
55°	3	2
65°	1	1
75°	0	0
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	1360.7
2.5°	1349.1
5°	1322.8
7.5°	1280.6
10°	1182.6
12.5°	992.9
15°	768.4
17.5°	588.1
20°	461.7
22.5°	377.3
25°	321.5
27.5°	286.7
30°	261.4
32.5°	230.8
35°	199.2
37.5°	156.0
40°	109.6
42.5°	63.2
45°	24.2
47.5°	7.4
50°	4.2
52.5°	3.2
55°	3.2
57.5°	2.1
60°	1.1
62.5°	1.1
65°	1.1
67.5°	1.1
70°	1.1
72.5°	1.1
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)