

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: P85064

Luminaire Tested: **ELG405835TBZ(50deg Beam-0 deg tilt)**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P85064
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P21165)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ELG405835TBZ(50deg Beam-0 deg tilt)
Description: HALO 4 INCH RECESSED FIXTURE WITH ROUND TUSCAN BRONZE TRIM,
TUSCAN BRONZE GIMBAL, WIDE 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: 643 (1 lamp)
Luminaire Lumens: 642.8 lumens
Efficiency: 100.0%
Efficacy: 46.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.79 / 0.77
Luminous Opening: Vertical Cylinder (Dia: 0.33' x H: 0.1')
CIE Type: Direct

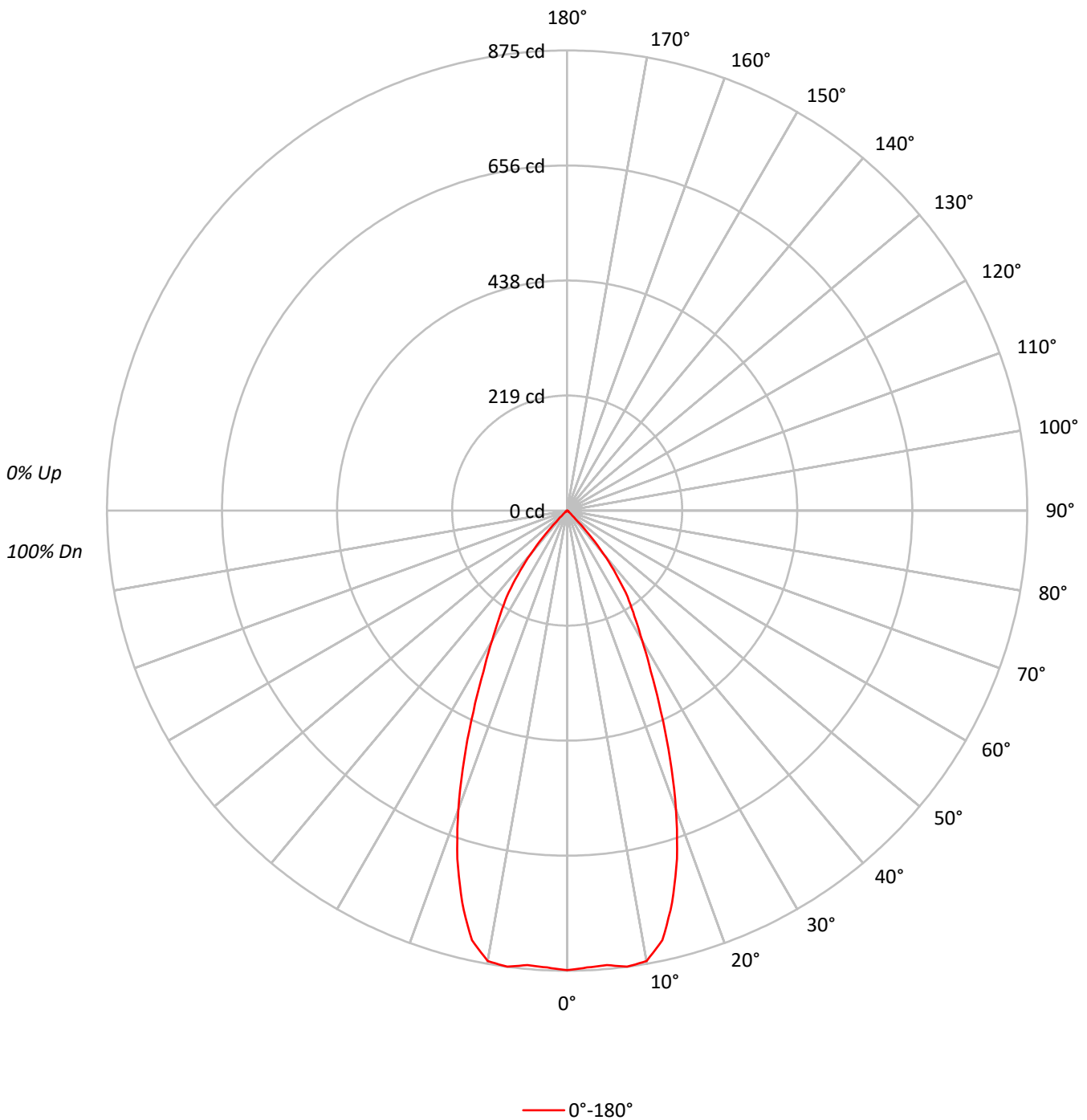
Input Watts (W): 13.7
Input Voltage (V): NR
Input Current (Ain): 0.11963
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	109	107	105	105	103	102		101	100	99		98	97	96	94
2	109	104	100	97	106	102	99	96	99	96	94		96	94	92		93	91	90	88
3	103	97	93	89	101	96	92	88	93	90	87		91	88	85		89	86	84	83
4	99	91	86	82	97	90	86	82	88	84	81		86	83	80		84	81	79	78
5	94	86	81	77	92	85	80	76	83	79	76		82	78	75		80	77	74	73
6	90	81	76	72	88	80	75	71	79	74	71		78	73	70		76	73	70	69
7	86	77	71	67	84	76	71	67	75	70	67		74	69	66		73	69	66	65
8	82	73	67	63	81	72	67	63	71	66	63		70	66	63		69	65	62	61
9	78	69	63	60	77	68	63	60	68	63	59		67	62	59		66	62	59	58
10	75	66	60	56	74	65	60	56	64	60	56		64	59	56		63	59	56	55

AVERAGE LUMINANCE (cd/sqm):

	0°
0°	107779
5°	103926
10°	102043
15°	89371
20°	69720
25°	48704
30°	33211
35°	23796
40°	13108
45°	2790
50°	554
55°	292
60°	312
65°	176
70°	194
75°	216
80°	0
85°	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	83.2	12.9	12.9
10°-20°	211.5	32.9	32.9
20°-30°	194.9	30.3	30.3
30°-40°	121.7	18.9	18.9
40°-50°	27.2	4.2	4.2
50°-60°	2.3	0.4	0.4
60°-70°	1.2	0.2	0.2
70°-80°	0.7	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°	489.6	76.2	76.1
0°-40°	611.3	95.1	95.1
0°-60°	640.9	99.7	99.7
0°-90°	642.8	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°	642.8	100.0	100.0

CANDELA DISTRIBUTION:

	0°	Flux
0°	874	
5°	867	83
15°	772	212
25°	422	195
35°	200	122
45°	22	27
55°	2	2
65°	1	1
75°	1	1
85°	0	0
90°	0	



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CANDELA DISTRIBUTION (FULL):

	0°
0°	873.8
2.5°	869.6
5°	867.4
7.5°	874.8
10°	869.6
12.5°	836.9
15°	771.5
17.5°	694.6
20°	605.0
22.5°	511.2
25°	421.6
27.5°	344.7
30°	284.6
32.5°	238.2
35°	200.3
37.5°	153.9
40°	107.5
42.5°	61.1
45°	22.1
47.5°	7.4
50°	4.2
52.5°	3.2
55°	2.1
57.5°	2.1
60°	2.1
62.5°	1.1
65°	1.1
67.5°	1.1
70°	1.1
72.5°	1.1
75°	1.1
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)