

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: P123764

Luminaire Tested: **ELSG406935TBZ (25° BEAM - 0° TILT)**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P123764
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13997)
Test Lab: INNOVATION CENTER-P1
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ELSG406935TBZ (25° BEAM - 0° TILT)
Description: HALO 4 INCH RECESSED FIXTURE WITH SQUARE TUSCAN BRONZE TRIM,
TUSCAN BRONZE GIMBAL, NARROW UPPER REFLECTOR AND CLEAR LENS.
Light Source: (1)SURFACE MOUNT LED, 3500K CCT, 90CRI
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 830.0 lumens
Efficiency: N/A
Efficacy: 63.8 lumens/watt
Spacing Criteria (0/90/45): 0.5 / 0.5 / 0.56
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
CIE Type: Direct

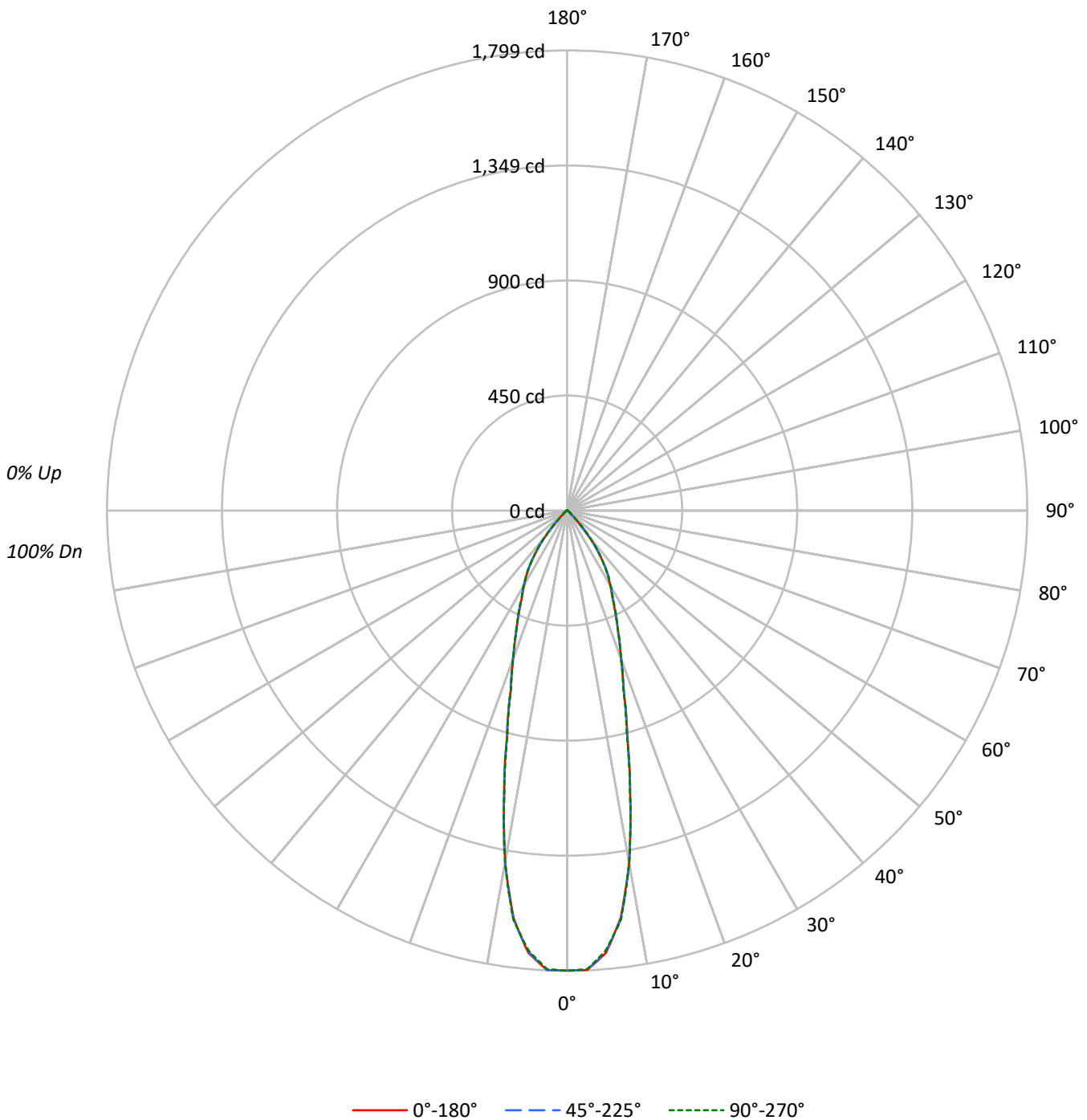
Input Watts (W): 13
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94				94
2	109	104	100	97	107	102	99	96	99	96	94	96	94	92	94	92	90	88				88
3	104	98	93	89	102	96	92	89	94	90	87	91	88	86	89	87	85	83				83
4	99	92	87	83	97	91	86	82	89	85	81	87	83	80	85	82	80	78				78
5	95	87	81	77	93	86	81	77	84	80	76	82	79	76	81	78	75	74				74
6	90	82	77	73	89	81	76	72	80	75	72	79	74	71	77	74	71	70				70
7	86	78	72	68	85	77	72	68	76	71	68	75	71	68	74	70	67	66				66
8	83	74	68	65	82	73	68	65	72	68	64	71	67	64	70	67	64	63				63
9	79	70	65	61	78	70	65	61	69	64	61	68	64	61	67	64	61	59				59
10	76	67	62	58	75	67	62	58	66	61	58	65	61	58	65	61	58	57				57

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	696956	696956	696956
5°	675307	673596	671923
10°	549019	549884	550317
15°	364221	363780	362055
20°	254349	255668	254349
25°	191332	193171	193171
30°	150521	152445	151997
35°	115282	116323	114762
40°	68188	69807	69807
45°	24222	25428	24825
50°	11032	12358	11695
55°	8039	9458	8039
60°	4185	5037	5037
65°	2017	2934	2017
70°	4872	3626	4872
75°	1647	1647	0
80°	0	0	0
85°	4891	9781	9781



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.9	18.7
10°-20°	256.9	31.0
20°-30°	209.0	25.2
30°-40°	149.8	18.0
40°-50°	43.7	5.3
50°-60°	11.1	1.3
60°-70°	2.4	0.3
70°-80°	1.3	0.2
80°-90°	0.8	0.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	620.9	74.8
0°-40°	770.7	92.9
0°-60°	825.5	99.5
0°-90°	830.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	830.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1799	1799	1799	1799	1799	
5°	1736	1732	1732	1727	1727	155
15°	908	906	907	905	902	257
25°	448	448	452	452	452	208
35°	244	244	246	246	243	149
45°	44	44	46	45	45	43
55°	12	13	14	13	12	10
65°	2	2	3	2	2	2
75°	1	1	1	1	0	1
85°	1	2	2	2	2	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1798.6	1798.6	1798.6	1798.6	1798.6
2.5°	1797.5	1796.4	1797.5	1795.4	1794.3
5°	1736.1	1731.7	1731.7	1727.4	1727.4
7.5°	1605.6	1606.7	1611.0	1612.1	1612.1
10°	1395.3	1395.3	1397.5	1396.4	1398.6
12.5°	1139.8	1140.8	1140.8	1138.7	1136.5
15°	907.9	905.8	906.8	904.7	902.5
17.5°	733.2	734.3	736.5	734.3	731.1
20°	616.8	616.8	620.0	618.9	616.8
22.5°	523.0	526.2	526.2	525.1	525.1
25°	447.5	447.5	451.8	451.8	451.8
27.5°	381.7	383.9	386.0	386.0	387.1
30°	336.4	337.5	340.7	339.7	339.7
32.5°	293.3	293.3	297.6	296.5	294.4
35°	243.7	243.7	245.9	245.9	242.6
37.5°	190.9	191.9	193.0	191.9	190.9
40°	134.8	134.8	138.0	138.0	138.0
42.5°	85.2	85.2	87.3	87.3	88.4
45°	44.2	44.2	46.4	45.3	45.3
47.5°	21.6	22.6	22.6	22.6	23.7
50°	18.3	19.4	20.5	19.4	19.4
52.5°	14.0	15.1	18.3	15.1	16.2
55°	11.9	12.9	14.0	12.9	11.9
57.5°	7.5	8.6	8.6	8.6	7.5
60°	5.4	6.5	6.5	5.4	6.5
62.5°	0.0	0.0	1.1	0.0	0.0
65°	2.2	2.2	3.2	2.2	2.2
67.5°	2.2	2.2	3.2	2.2	1.1
70°	4.3	3.2	3.2	3.2	4.3
72.5°	0.0	0.0	2.2	0.0	1.1
75°	1.1	1.1	1.1	1.1	0.0
77.5°	1.1	1.1	2.2	1.1	1.1
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	1.1	1.1	1.1	1.1
85°	1.1	2.2	2.2	2.2	2.2
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)