

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: P123812

Luminaire Tested: **ELSG406935TBZ (50° BEAM - 0° TILT)**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P123812
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14001)
Test Lab: INNOVATION CENTER-P1
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ELSG406935TBZ (50° 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: 800.0 lumens
Efficiency: N/A
Efficacy: 61.5 lumens/watt
Spacing Criteria (0/90/45): 0.88 / 0.89 / 0.82
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

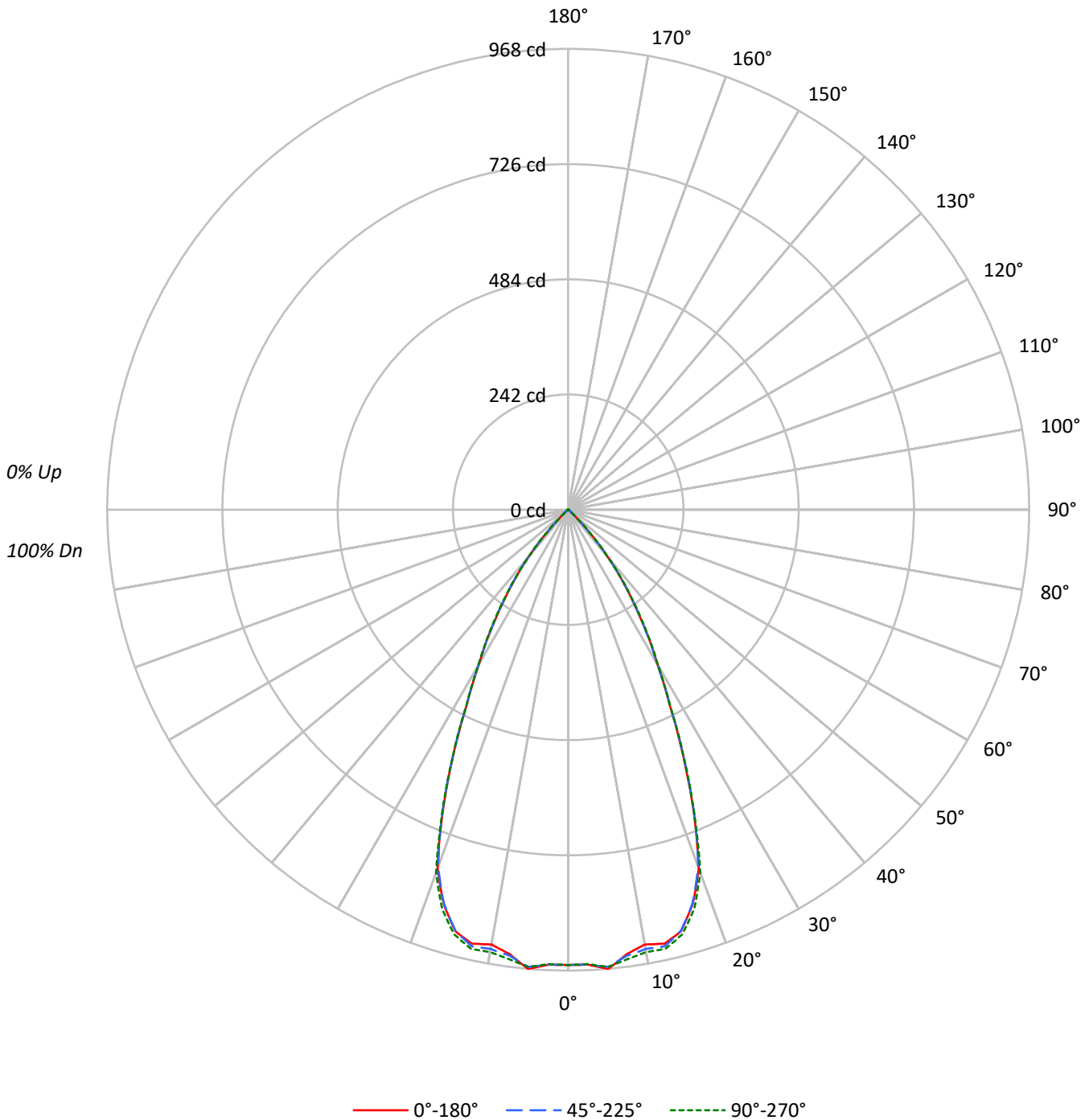
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	100	100	100	100	100		
1	114	111	109	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94	94	94	94	94	94	94		
2	108	104	100	97	106	102	98	95	99	96	93	96	93	91	93	91	90	88	88	88	88	88	88	88		
3	103	97	92	88	101	96	91	88	93	89	86	91	88	85	88	86	84	82	82	82	82	82	82	82		
4	98	91	86	82	96	90	85	81	88	84	80	86	82	79	84	81	78	77	77	77	77	77	77	77		
5	94	86	80	76	92	85	79	75	83	78	75	81	77	74	80	76	73	72	72	72	72	72	72	72		
6	89	81	75	71	88	80	74	70	78	74	70	77	73	69	76	72	69	68	68	68	68	68	68	68		
7	85	76	70	66	84	75	70	66	74	69	66	73	69	65	72	68	65	64	64	64	64	64	64	64		
8	81	72	66	62	80	71	66	62	70	65	62	69	65	61	68	64	61	60	60	60	60	60	60	60		
9	77	68	62	58	76	68	62	58	67	62	58	66	61	58	65	61	58	56	56	56	56	56	56	56		
10	74	64	59	55	73	64	59	55	63	58	55	63	58	55	62	58	55	53	53	53	53	53	53	53		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	471868	471868	471868
5°	479564	477435	477435
10°	464569	469428	472685
15°	468134	467572	471965
20°	421085	419405	425653
25°	311442	312640	313239
30°	214038	214038	215235
35°	144312	145637	148227
40°	83406	83406	83406
45°	24840	24840	24072
50°	5833	5833	5833
55°	2753	1892	2753
60°	3158	3158	2171
65°	2568	2568	1284
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	6227	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.7	11.3
10°-20°	253.2	31.6
20°-30°	262.0	32.7
30°-40°	152.1	19.0
40°-50°	36.1	4.5
50°-60°	3.8	0.5
60°-70°	1.4	0.2
70°-80°	0.4	0.1
80°-90°	0.3	0.0
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°	605.9	75.7
0°-40°	758.0	94.8
0°-60°	797.9	99.7
0°-90°	800.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	800.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	956	956	956	956	956	
5°	968	968	964	964	964	90
15°	916	916	915	924	924	252
25°	572	571	574	572	575	262
35°	240	241	242	245	246	151
45°	36	36	36	36	34	36
55°	3	3	2	3	3	4
65°	2	2	2	2	1	1
75°	0	0	0	0	0	1
85°	0	0	1	1	0	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	956.4	956.4	956.4	956.4	956.4
2.5°	956.4	957.5	956.4	956.4	955.3
5°	968.3	968.3	964.0	964.0	964.0
7.5°	941.3	942.4	944.5	949.9	952.1
10°	927.3	930.5	937.0	944.5	943.5
12.5°	933.7	934.8	939.1	947.8	944.5
15°	916.5	916.5	915.4	924.0	924.0
17.5°	869.0	869.0	867.9	875.5	879.8
20°	802.0	801.0	798.8	802.0	810.7
22.5°	689.8	691.9	691.9	691.9	693.0
25°	572.1	571.0	574.3	572.1	575.4
27.5°	460.9	459.9	462.0	463.1	463.1
30°	375.7	375.7	375.7	376.7	377.8
32.5°	306.6	305.5	306.6	308.7	309.8
35°	239.6	240.7	241.8	245.0	246.1
37.5°	183.5	183.5	185.7	186.7	186.7
40°	129.5	128.5	129.5	129.5	129.5
42.5°	77.7	77.7	77.7	77.7	78.8
45°	35.6	35.6	35.6	35.6	34.5
47.5°	11.9	11.9	11.9	10.8	11.9
50°	7.6	6.5	7.6	7.6	7.6
52.5°	5.4	5.4	5.4	5.4	5.4
55°	3.2	3.2	2.2	3.2	3.2
57.5°	3.2	4.3	3.2	3.2	3.2
60°	3.2	3.2	3.2	2.2	2.2
62.5°	1.1	1.1	2.2	1.1	1.1
65°	2.2	2.2	2.2	2.2	1.1
67.5°	1.1	1.1	1.1	1.1	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	2.2	1.1	2.2	1.1	1.1
75°	0.0	0.0	0.0	0.0	0.0
77.5°	1.1	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	1.1	1.1	0.0
87.5°	1.1	0.0	1.1	0.0	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)