

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: P123811

Luminaire Tested: **ELSG406930TBZ (50° BEAM - 0° TILT)**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P123811  
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: ELSG406930TBZ (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, 3000K CCT, 90CRI  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 760.0 lumens  
Efficiency: N/A  
Efficacy: 58.5 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

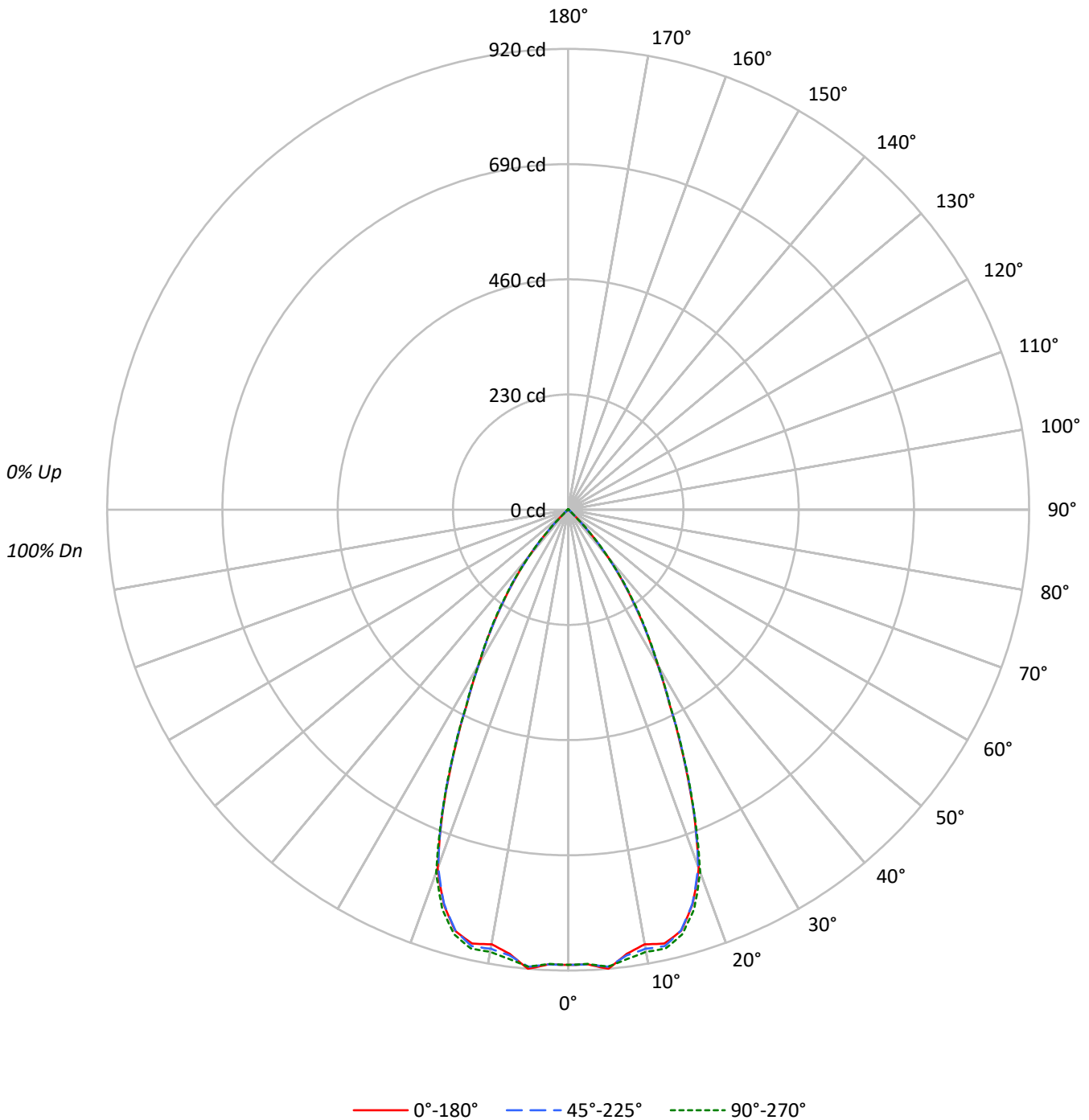
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	448285	448285	448285
5°	455594	453563	453563
10°	441323	445932	449038
15°	444689	444178	448366
20°	400031	398456	404336
25°	295873	297016	297560
30°	203328	203328	204467
35°	137145	138350	140819
40°	79284	79284	79284
45°	23584	23584	22886
50°	5526	5526	5526
55°	2667	1806	2667
60°	3059	3059	2072
65°	2452	2452	1167
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	5661	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.2	11.3
10°-20°	240.5	31.6
20°-30°	248.9	32.7
30°-40°	144.5	19.0
40°-50°	34.3	4.5
50°-60°	3.6	0.5
60°-70°	1.3	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°	575.6	75.7
0°-40°	720.1	94.8
0°-60°	758.0	99.7
0°-90°	760.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	760.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	909	909	909	909	909	
5°	920	920	916	916	916	86
15°	871	871	870	878	878	240
25°	544	542	546	544	547	248
35°	228	229	230	233	234	144
45°	34	34	34	34	33	34
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°	908.6	908.6	908.6	908.6	908.6
2.5°	908.6	909.6	908.6	908.6	907.6
5°	919.9	919.9	915.8	915.8	915.8
7.5°	894.2	895.3	897.3	902.4	904.5
10°	880.9	884.0	890.1	897.3	896.3
12.5°	887.1	888.1	892.2	900.4	897.3
15°	870.6	870.6	869.6	877.8	877.8
17.5°	825.5	825.5	824.5	831.7	835.8
20°	761.9	760.9	758.9	761.9	770.1
22.5°	655.3	657.3	657.3	657.3	658.4
25°	543.5	542.5	545.6	543.5	546.6
27.5°	437.9	436.9	438.9	439.9	439.9
30°	356.9	356.9	356.9	357.9	358.9
32.5°	291.2	290.2	291.2	293.3	294.3
35°	227.7	228.7	229.7	232.8	233.8
37.5°	174.3	174.3	176.4	177.4	177.4
40°	123.1	122.0	123.1	123.1	123.1
42.5°	73.8	73.8	73.8	73.8	74.9
45°	33.8	33.8	33.8	33.8	32.8
47.5°	11.3	11.3	11.3	10.3	11.3
50°	7.2	6.2	7.2	7.2	7.2
52.5°	5.1	5.1	5.1	5.1	5.1
55°	3.1	3.1	2.1	3.1	3.1
57.5°	3.1	4.1	3.1	3.1	3.1
60°	3.1	3.1	3.1	2.1	2.1
62.5°	1.0	1.0	2.1	1.0	1.0
65°	2.1	2.1	2.1	2.1	1.0
67.5°	1.0	1.0	1.0	1.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	2.1	1.0	2.1	1.0	1.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	1.0	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	1.0	1.0	0.0
87.5°	1.0	0.0	1.0	0.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)