

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: P123763

Luminaire Tested: **ELSG406930TBZ (25° BEAM - 0° TILT)**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P123763  
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: ELSG406930TBZ (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, 3000K CCT, 90CRI  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 790.0 lumens  
Efficiency: N/A  
Efficacy: 60.8 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

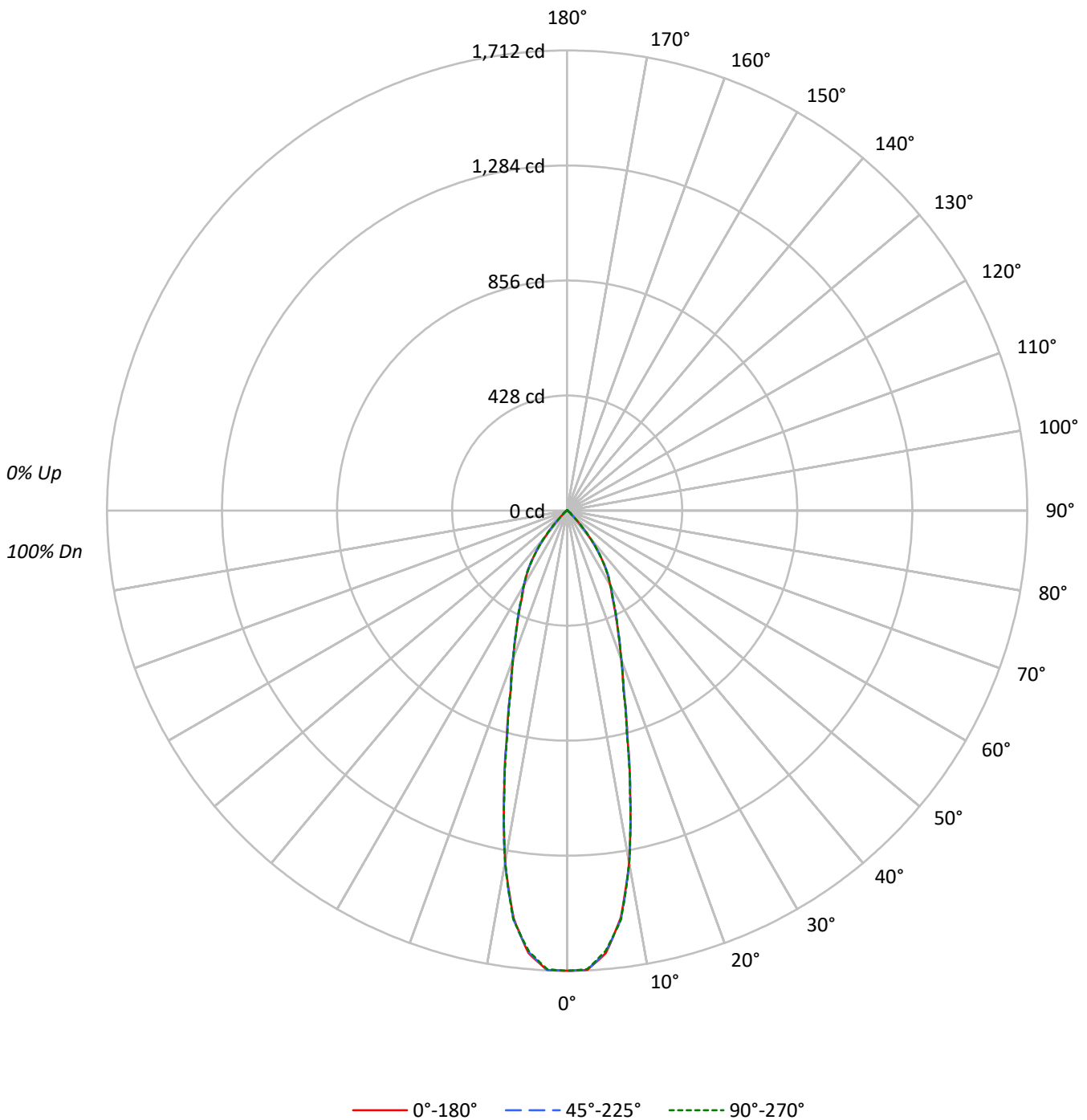
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P123763

CATALOG NUMBER: ELSG406930TBZ (25° BEAM - 0° TILT)

### Luminous Intensity Polar Plot





TEST NUMBER: P123763

CATALOG NUMBER: ELSG406930TBZ (25° BEAM - 0° TILT)

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	663360	663360	663360
5°	642750	641155	639560
10°	522577	523364	523797
15°	346690	346249	344604
20°	242101	243338	242101
25°	182097	183850	183850
30°	143272	145107	144659
35°	109747	110694	109227
40°	64900	66468	66468
45°	23071	24167	23619
50°	10489	11755	11153
55°	7634	8985	7634
60°	3952	4805	4805
65°	1925	2842	1925
70°	4645	3512	4645
75°	1497	1497	0
80°	0	0	0
85°	4446	9337	9337



TEST NUMBER: P123763

CATALOG NUMBER: ELSG406930TBZ (25° BEAM - 0° TILT)

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.4	18.7
10°-20°	244.6	31.0
20°-30°	199.0	25.2
30°-40°	142.6	18.0
40°-50°	41.7	5.3
50°-60°	10.6	1.3
60°-70°	2.3	0.3
70°-80°	1.2	0.1
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°	590.9	74.8
0°-40°	733.5	92.8
0°-60°	785.7	99.5
0°-90°	790.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	790.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1712	1712	1712	1712	1712	
5°	1652	1648	1648	1644	1644	147
15°	864	862	863	861	859	245
25°	426	426	430	430	430	198
35°	232	232	234	234	231	142
45°	42	42	44	43	43	41
55°	11	12	13	12	11	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	



TEST NUMBER: P123763

CATALOG NUMBER: ELSG406930TBZ (25° BEAM - 0° TILT)

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1711.9	1711.9	1711.9	1711.9	1711.9
2.5°	1710.9	1709.9	1710.9	1708.8	1707.8
5°	1652.4	1648.3	1648.3	1644.2	1644.2
7.5°	1528.2	1529.2	1533.3	1534.4	1534.4
10°	1328.1	1328.1	1330.1	1329.1	1331.2
12.5°	1084.8	1085.9	1085.9	1083.8	1081.8
15°	864.2	862.1	863.1	861.1	859.0
17.5°	697.9	698.9	701.0	698.9	695.9
20°	587.1	587.1	590.1	589.1	587.1
22.5°	497.8	500.8	500.8	499.8	499.8
25°	425.9	425.9	430.0	430.0	430.0
27.5°	363.3	365.4	367.4	367.4	368.5
30°	320.2	321.2	324.3	323.3	323.3
32.5°	279.2	279.2	283.3	282.2	280.2
35°	232.0	232.0	234.0	234.0	230.9
37.5°	181.7	182.7	183.7	182.7	181.7
40°	128.3	128.3	131.4	131.4	131.4
42.5°	81.1	81.1	83.1	83.1	84.2
45°	42.1	42.1	44.1	43.1	43.1
47.5°	20.5	21.6	21.6	21.6	22.6
50°	17.4	18.5	19.5	18.5	18.5
52.5°	13.3	14.4	17.4	14.4	15.4
55°	11.3	12.3	13.3	12.3	11.3
57.5°	7.2	8.2	8.2	8.2	7.2
60°	5.1	6.2	6.2	5.1	6.2
62.5°	0.0	0.0	1.0	0.0	0.0
65°	2.1	2.1	3.1	2.1	2.1
67.5°	2.1	2.1	3.1	2.1	1.0
70°	4.1	3.1	3.1	3.1	4.1
72.5°	0.0	0.0	2.1	0.0	1.0
75°	1.0	1.0	1.0	1.0	0.0
77.5°	1.0	1.0	2.1	1.0	1.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	1.0	1.0	1.0	1.0
85°	1.0	2.1	2.1	2.1	2.1
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)