

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: P123787

Luminaire Tested: **ELSG406930TBZ (35° BEAM - 0° TILT)**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P123787  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13999)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ELSG406930TBZ (35° 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: 770.0 lumens  
Efficiency: N/A  
Efficacy: 59.2 lumens/watt  
Spacing Criteria (0/90/45): 0.64 / 0.64 / 0.62  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

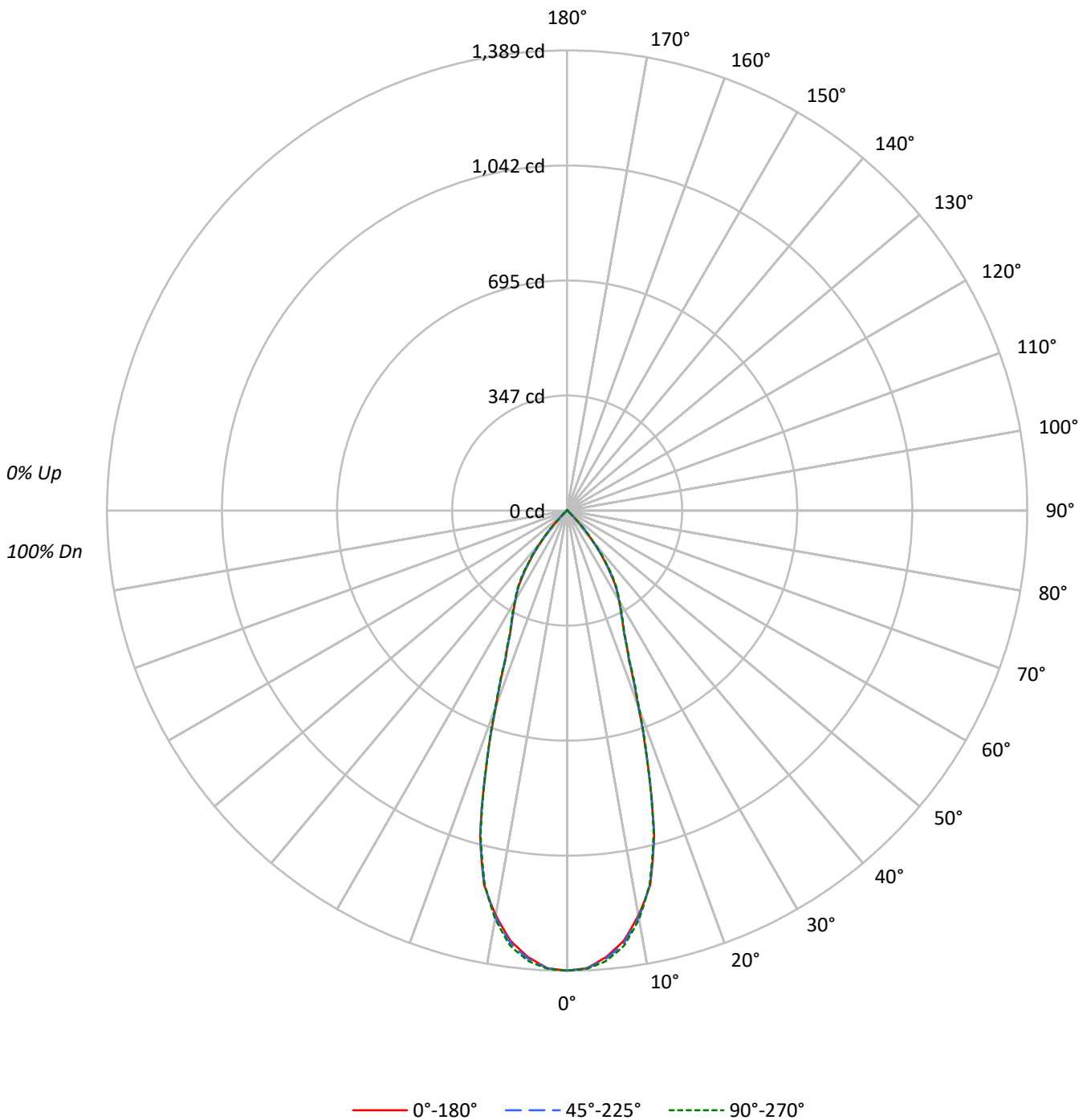
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P123787

CATALOG NUMBER: ELSG406930TBZ (35° BEAM - 0° TILT)

### Luminous Intensity Polar Plot





TEST NUMBER: P123787

CATALOG NUMBER: ELSG406930TBZ (35° 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			
1	114	111	109	107	111	109	107	105	105	104	102	101	100	99	98	97	96	94					94			
2	109	104	101	97	107	103	99	96	99	97	94	96	94	92	94	92	90	89					89			
3	104	98	93	90	102	97	92	89	94	91	88	92	89	86	89	87	85	84					84			
4	99	92	87	83	98	91	87	83	89	85	82	87	84	81	85	82	80	79					79			
5	95	87	82	78	93	86	81	78	85	80	77	83	79	76	81	78	76	74					74			
6	91	83	77	73	89	82	77	73	80	76	72	79	75	72	78	74	71	70					70			
7	87	78	73	69	85	78	72	69	76	72	68	75	71	68	74	70	68	66					66			
8	83	74	69	65	82	74	69	65	73	68	65	72	68	64	71	67	64	63					63			
9	80	71	65	62	79	70	65	62	69	65	61	69	64	61	68	64	61	60					60			
10	76	68	62	59	75	67	62	59	66	62	58	66	61	58	65	61	58	57					57			

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

	0°	45°	90°
0°	538082	538082	538082
5°	526173	528156	530529
10°	488227	490233	492240
15°	407186	406785	404699
20°	258143	259008	261112
25°	173760	172905	173760
30°	139603	140051	140498
35°	104875	106815	109700
40°	60752	61258	61764
45°	20824	19673	19125
50°	6209	5546	5546
55°	3445	3445	2770
60°	1627	1627	1627
65°	1925	1925	1925
70°	3512	2379	2379
75°	0	0	0
80°	0	0	0
85°	4446	0	4446



TEST NUMBER: P123787

CATALOG NUMBER: ELSG406930TBZ (35° BEAM - 0° TILT)

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.2	16.4
10°-20°	268.6	34.9
20°-30°	195.0	25.3
30°-40°	138.0	17.9
40°-50°	35.9	4.7
50°-60°	3.6	0.5
60°-70°	1.6	0.2
70°-80°	0.6	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°	589.9	76.6
0°-40°	727.9	94.5
0°-60°	767.4	99.7
0°-90°	770.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	770.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1389	1389	1389	1389	1389	
5°	1353	1357	1358	1362	1364	126
15°	1015	1016	1014	1012	1009	268
25°	406	403	404	405	406	194
35°	222	224	226	230	232	136
45°	38	38	36	37	35	36
55°	5	6	5	5	4	4
65°	2	1	2	1	2	2
75°	0	0	0	0	0	1
85°	1	1	0	0	1	1
90°	0	0	0	0	0	



TEST NUMBER: P123787

CATALOG NUMBER: ELSG406930TBZ (35° BEAM - 0° TILT)

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1388.6	1388.6	1388.6	1388.6	1388.6
2.5°	1382.4	1383.4	1382.4	1383.4	1384.5
5°	1352.7	1356.8	1357.8	1361.9	1363.9
7.5°	1309.5	1312.6	1315.7	1322.9	1323.9
10°	1240.8	1242.8	1245.9	1250.0	1251.0
12.5°	1157.7	1156.6	1155.6	1153.6	1152.5
15°	1015.0	1016.0	1014.0	1011.9	1008.8
17.5°	812.8	815.9	814.9	818.0	813.8
20°	626.0	626.0	628.1	630.1	633.2
22.5°	485.4	487.5	488.5	489.5	491.6
25°	406.4	403.3	404.4	405.4	406.4
27.5°	354.1	354.1	356.1	357.1	359.2
30°	312.0	311.0	313.0	314.0	314.0
32.5°	274.0	274.0	275.0	278.1	279.2
35°	221.7	223.7	225.8	229.9	231.9
37.5°	171.4	172.4	174.5	178.6	177.5
40°	120.1	119.0	121.1	122.1	122.1
42.5°	77.0	75.9	75.9	75.9	75.9
45°	38.0	38.0	35.9	36.9	34.9
47.5°	14.4	13.3	13.3	13.3	15.4
50°	10.3	10.3	9.2	9.2	9.2
52.5°	5.1	4.1	4.1	5.1	5.1
55°	5.1	6.2	5.1	5.1	4.1
57.5°	1.0	2.1	0.0	0.0	0.0
60°	2.1	2.1	2.1	2.1	2.1
62.5°	2.1	2.1	2.1	2.1	2.1
65°	2.1	1.0	2.1	1.0	2.1
67.5°	0.0	1.0	1.0	1.0	0.0
70°	3.1	2.1	2.1	2.1	2.1
72.5°	1.0	0.0	1.0	1.0	1.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	1.0	1.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	1.0	1.0	0.0	1.0	0.0
85°	1.0	1.0	0.0	0.0	1.0
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)