

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: P123778

Luminaire Tested: **ELSG406927SN (25° BEAM - 0° TILT)**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P123778  
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: ELSG406927SN (25° BEAM - 0° TILT)  
Description: HALO 4 INCH RECESSED FIXTURE WITH SQUARE SATIN NICKEL TRIM,  
SATIN NICKEL GIMBAL, NARROW UPPER REFLECTOR AND CLEAR LENS.  
Light Source: (1)SURFACE MOUNT LED, 2700K CCT, 90CRI  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 700.0 lumens  
Efficiency: N/A  
Efficacy: 53.8 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

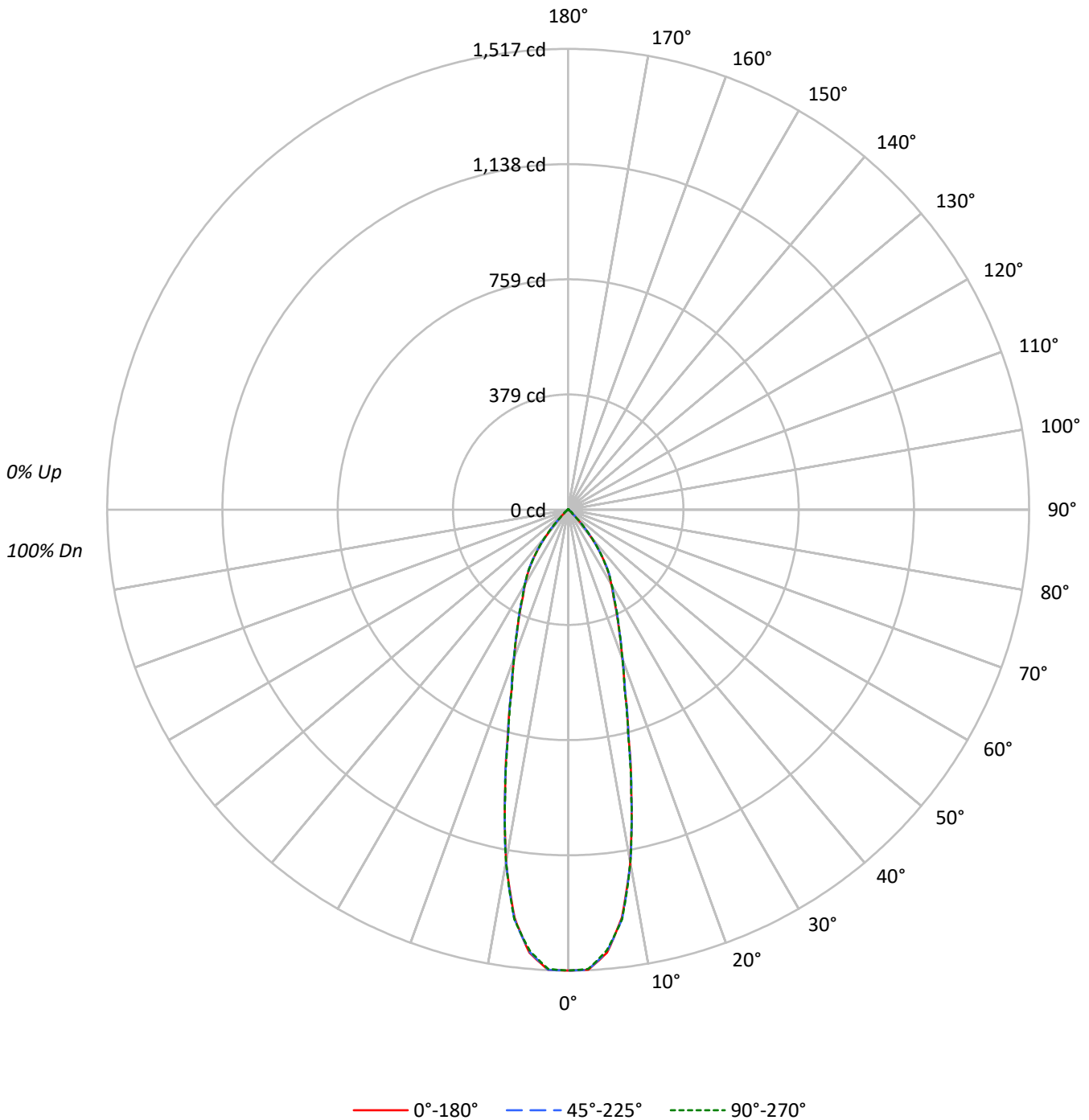
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	587798	587798	587798
5°	569505	568105	566704
10°	463044	463752	464106
15°	307175	306814	305370
20°	214514	215627	214514
25°	161360	162900	162900
30°	126940	128596	128193
35°	97212	98063	96786
40°	57515	58880	58880
45°	20441	21427	20934
50°	9344	10429	9887
55°	6756	7972	6756
60°	3487	4262	4262
65°	1650	2476	1650
70°	4079	3059	4079
75°	1347	1347	0
80°	0	0	0
85°	4001	8003	8003



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.6	18.7
10°-20°	216.7	31.0
20°-30°	176.3	25.2
30°-40°	126.3	18.1
40°-50°	36.9	5.3
50°-60°	9.4	1.3
60°-70°	2.0	0.3
70°-80°	1.0	0.1
80°-90°	0.7	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°	523.6	74.8
0°-40°	650.0	92.9
0°-60°	696.2	99.5
0°-90°	700.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	700.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1517	1517	1517	1517	1517	
5°	1464	1460	1460	1457	1457	131
15°	766	764	765	763	761	217
25°	377	377	381	381	381	175
35°	206	206	207	207	205	126
45°	37	37	39	38	38	36
55°	10	11	12	11	10	8
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°	1516.9	1516.9	1516.9	1516.9	1516.9
2.5°	1516.0	1515.1	1516.0	1514.2	1513.3
5°	1464.1	1460.5	1460.5	1456.9	1456.9
7.5°	1354.1	1355.0	1358.7	1359.6	1359.6
10°	1176.8	1176.8	1178.6	1177.7	1179.5
12.5°	961.2	962.2	962.2	960.3	958.5
15°	765.7	763.9	764.8	763.0	761.2
17.5°	618.4	619.3	621.1	619.3	616.6
20°	520.2	520.2	522.9	522.0	520.2
22.5°	441.1	443.8	443.8	442.9	442.9
25°	377.4	377.4	381.0	381.0	381.0
27.5°	321.9	323.7	325.6	325.6	326.5
30°	283.7	284.6	287.4	286.5	286.5
32.5°	247.4	247.4	251.0	250.1	248.3
35°	205.5	205.5	207.3	207.3	204.6
37.5°	161.0	161.9	162.8	161.9	161.0
40°	113.7	113.7	116.4	116.4	116.4
42.5°	71.8	71.8	73.7	73.7	74.6
45°	37.3	37.3	39.1	38.2	38.2
47.5°	18.2	19.1	19.1	19.1	20.0
50°	15.5	16.4	17.3	16.4	16.4
52.5°	11.8	12.7	15.5	12.7	13.6
55°	10.0	10.9	11.8	10.9	10.0
57.5°	6.4	7.3	7.3	7.3	6.4
60°	4.5	5.5	5.5	4.5	5.5
62.5°	0.0	0.0	0.9	0.0	0.0
65°	1.8	1.8	2.7	1.8	1.8
67.5°	1.8	1.8	2.7	1.8	0.9
70°	3.6	2.7	2.7	2.7	3.6
72.5°	0.0	0.0	1.8	0.0	0.9
75°	0.9	0.9	0.9	0.9	0.0
77.5°	0.9	0.9	1.8	0.9	0.9
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.9	0.9	0.9	0.9
85°	0.9	1.8	1.8	1.8	1.8
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)