

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: P123781

Luminaire Tested: **ELSG406940SN (25° BEAM - 0° TILT)**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P123781  
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: ELSG406940SN (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, 4000K CCT, 90CRI  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 880.0 lumens  
Efficiency: N/A  
Efficacy: 67.7 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

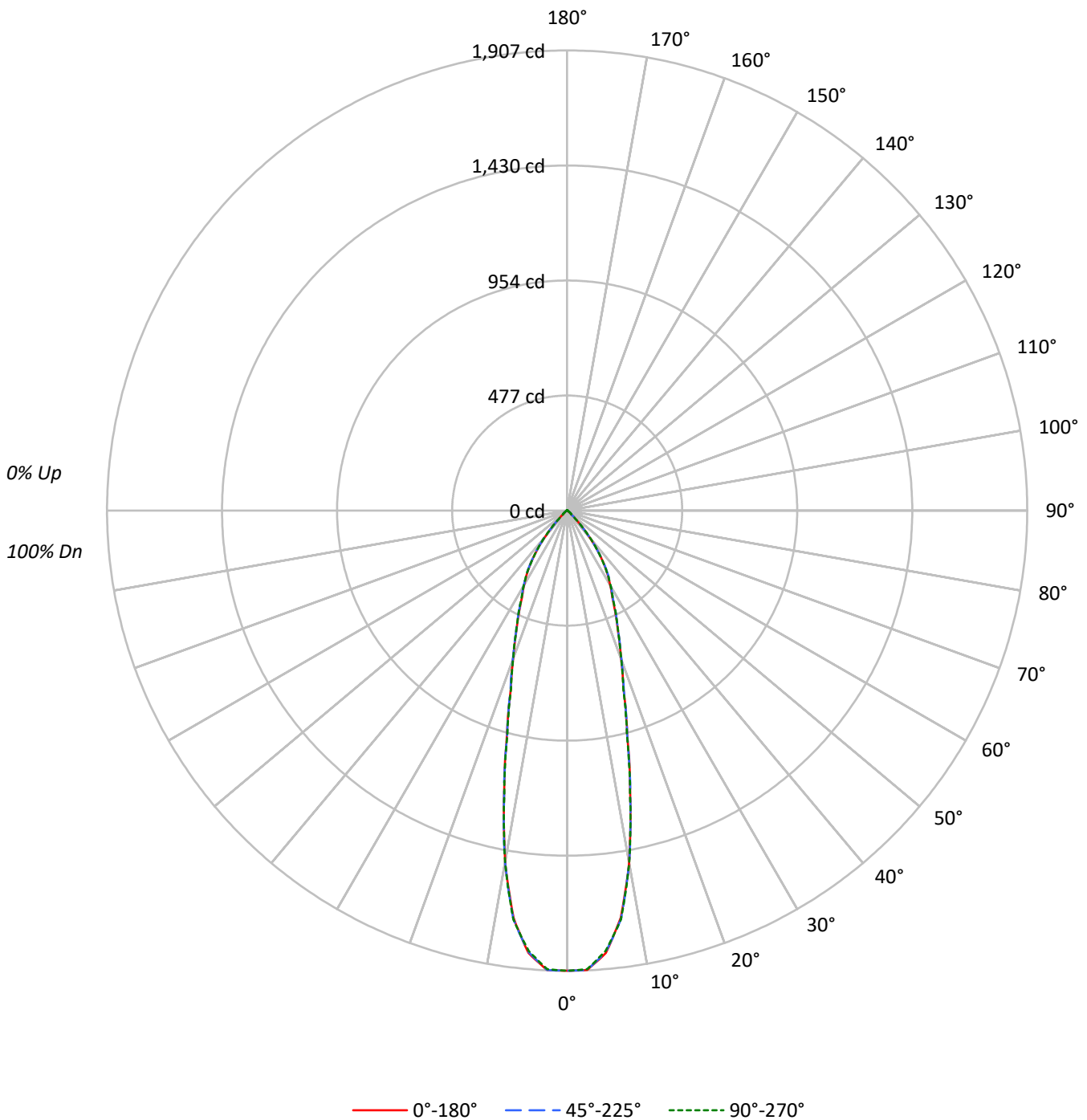
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	738923	738923	738923
5°	715956	714205	712416
10°	582110	583015	583448
15°	386165	385724	383879
20°	269648	271091	269648
25°	202876	204800	204800
30°	159604	161662	161125
35°	122236	123324	121668
40°	72285	74005	74005
45°	25702	26962	26304
50°	11695	13082	12419
55°	8512	10066	8512
60°	4417	5347	5347
65°	2109	3117	2109
70°	5212	3852	5212
75°	1647	1647	0
80°	0	0	0
85°	4891	10226	10226



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	164.2	18.7
10°-20°	272.4	31.0
20°-30°	221.6	25.2
30°-40°	158.8	18.1
40°-50°	46.4	5.3
50°-60°	11.8	1.3
60°-70°	2.6	0.3
70°-80°	1.3	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°	658.3	74.8
0°-40°	817.1	92.9
0°-60°	875.3	99.5
0°-90°	880.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	880.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1907	1907	1907	1907	1907	
5°	1841	1836	1836	1832	1832	164
15°	963	960	962	959	957	272
25°	474	474	479	479	479	220
35°	258	258	261	261	257	158
45°	47	47	49	48	48	45
55°	13	14	15	14	13	11
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°	1906.9	1906.9	1906.9	1906.9	1906.9
2.5°	1905.8	1904.7	1905.8	1903.5	1902.4
5°	1840.6	1836.1	1836.1	1831.5	1831.5
7.5°	1702.3	1703.4	1708.0	1709.2	1709.2
10°	1479.4	1479.4	1481.7	1480.5	1482.8
12.5°	1208.4	1209.6	1209.6	1207.3	1205.0
15°	962.6	960.3	961.5	959.2	956.9
17.5°	777.4	778.6	780.8	778.6	775.1
20°	653.9	653.9	657.4	656.2	653.9
22.5°	554.5	557.9	557.9	556.8	556.8
25°	474.5	474.5	479.0	479.0	479.0
27.5°	404.7	407.0	409.3	409.3	410.4
30°	356.7	357.8	361.3	360.1	360.1
32.5°	311.0	311.0	315.5	314.4	312.1
35°	258.4	258.4	260.7	260.7	257.2
37.5°	202.4	203.5	204.6	203.5	202.4
40°	142.9	142.9	146.3	146.3	146.3
42.5°	90.3	90.3	92.6	92.6	93.7
45°	46.9	46.9	49.2	48.0	48.0
47.5°	22.9	24.0	24.0	24.0	25.2
50°	19.4	20.6	21.7	20.6	20.6
52.5°	14.9	16.0	19.4	16.0	17.1
55°	12.6	13.7	14.9	13.7	12.6
57.5°	8.0	9.1	9.1	9.1	8.0
60°	5.7	6.9	6.9	5.7	6.9
62.5°	0.0	0.0	1.1	0.0	0.0
65°	2.3	2.3	3.4	2.3	2.3
67.5°	2.3	2.3	3.4	2.3	1.1
70°	4.6	3.4	3.4	3.4	4.6
72.5°	0.0	0.0	2.3	0.0	1.1
75°	1.1	1.1	1.1	1.1	0.0
77.5°	1.1	1.1	2.3	1.1	1.1
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	1.1	1.1	1.1	1.1
85°	1.1	2.3	2.3	2.3	2.3
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)