

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: P123819

Luminaire Tested: **ELSG406930WH (50° BEAM - 0° TILT)**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P123819
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: ELSG406930WH (50° BEAM - 0° TILT)
Description: HALO 4 INCH RECESSED FIXTURE WITH SQUARE WHITE TRIM,
WHITE 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: 810.1 lumens
Efficiency: N/A
Efficacy: 62.3 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

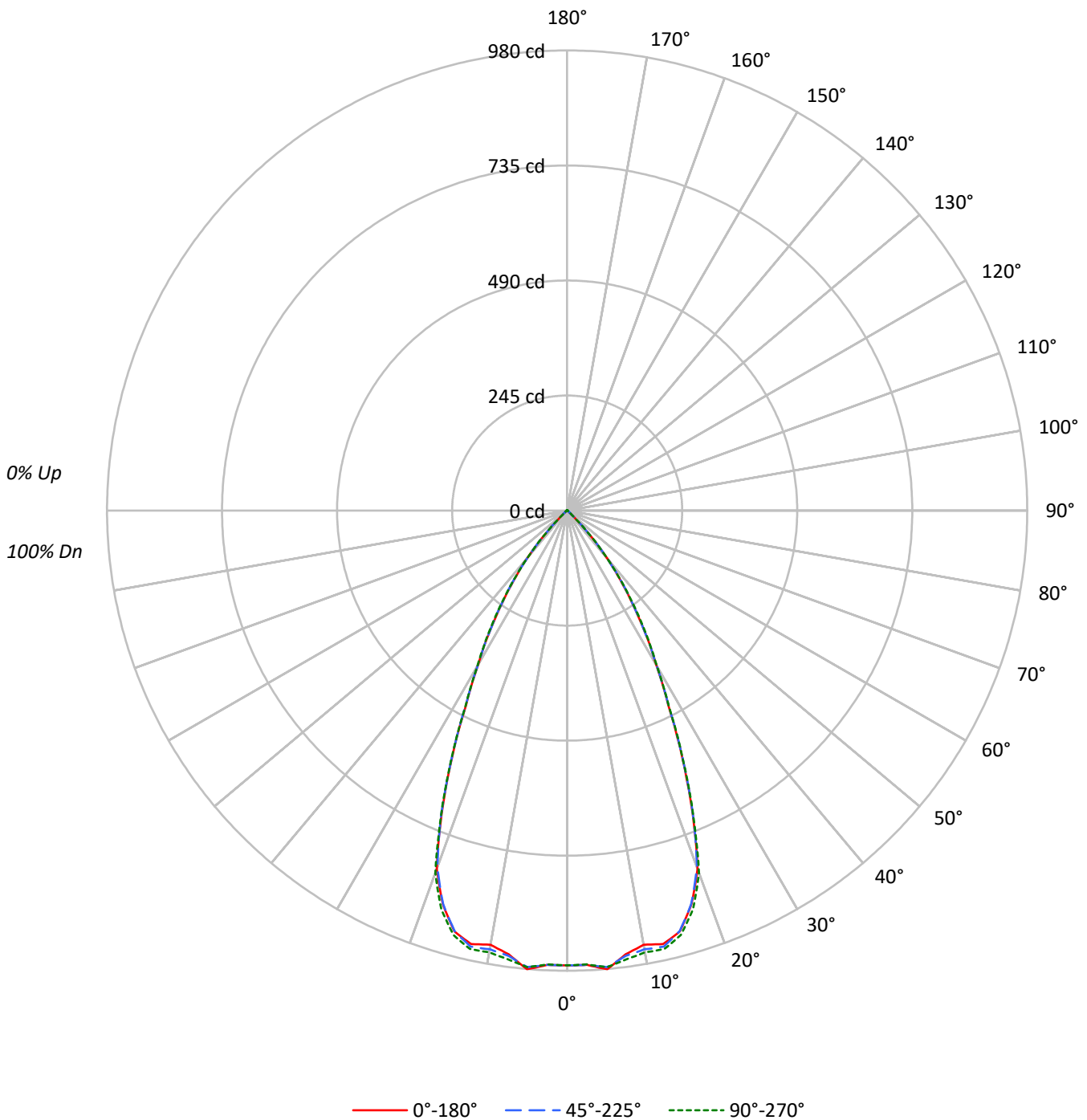
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94				94
2	108	104	100	97	106	102	98	95	99	96	93	96	93	91	93	91	90	88				88
3	103	97	92	88	101	96	91	88	93	89	86	91	88	85	88	86	84	82				82
4	98	91	86	82	96	90	85	81	88	84	80	86	82	79	84	81	78	77				77
5	94	86	80	76	92	85	79	75	83	78	75	81	77	74	80	76	73	72				72
6	89	81	75	71	88	80	74	70	78	74	70	77	73	69	76	72	69	68				68
7	85	76	70	66	84	75	70	66	74	69	66	73	69	65	72	68	65	64				64
8	81	72	66	62	80	71	66	62	70	65	62	69	65	61	68	64	61	60				60
9	77	68	62	58	76	68	62	58	67	62	58	66	61	58	65	61	58	56				56
10	74	64	59	55	73	64	59	55	63	58	55	63	58	55	62	58	55	53				53

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	477789	477789	477789
5°	485557	483378	483378
10°	470380	475290	478596
15°	473957	473395	477890
20°	426388	424655	430956
25°	315362	316559	317158
30°	216716	216716	217912
35°	146119	147444	150094
40°	84501	84501	84501
45°	25189	25189	24421
50°	5910	5910	5910
55°	2839	1892	2839
60°	3256	3256	2171
65°	2568	2568	1284
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	6227	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.9	11.3
10°-20°	256.4	31.6
20°-30°	265.3	32.7
30°-40°	154.0	19.0
40°-50°	36.5	4.5
50°-60°	3.8	0.5
60°-70°	1.4	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°	613.5	75.7
0°-40°	767.5	94.7
0°-60°	807.9	99.7
0°-90°	810.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	810.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	968	968	968	968	968	
5°	980	980	976	976	976	92
15°	928	928	927	936	936	255
25°	579	578	582	579	583	265
35°	243	244	245	248	249	153
45°	36	36	36	36	35	37
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°	968.4	968.4	968.4	968.4	968.4
2.5°	968.4	969.5	968.4	968.4	967.3
5°	980.4	980.4	976.0	976.0	976.0
7.5°	953.1	954.2	956.3	961.8	964.0
10°	938.9	942.1	948.7	956.3	955.3
12.5°	945.4	946.5	950.9	959.6	956.3
15°	927.9	927.9	926.8	935.6	935.6
17.5°	879.8	879.8	878.7	886.4	890.8
20°	812.1	811.0	808.8	812.1	820.8
22.5°	698.4	700.6	700.6	700.6	701.7
25°	579.3	578.2	581.5	579.3	582.6
27.5°	466.7	465.6	467.8	468.9	468.9
30°	380.4	380.4	380.4	381.4	382.5
32.5°	310.4	309.3	310.4	312.6	313.7
35°	242.6	243.7	244.8	248.1	249.2
37.5°	185.8	185.8	188.0	189.1	189.1
40°	131.2	130.1	131.2	131.2	131.2
42.5°	78.7	78.7	78.7	78.7	79.8
45°	36.1	36.1	36.1	36.1	35.0
47.5°	12.0	12.0	12.0	10.9	12.0
50°	7.7	6.6	7.7	7.7	7.7
52.5°	5.5	5.5	5.5	5.5	5.5
55°	3.3	3.3	2.2	3.3	3.3
57.5°	3.3	4.4	3.3	3.3	3.3
60°	3.3	3.3	3.3	2.2	2.2
62.5°	1.1	1.1	2.2	1.1	1.1
65°	2.2	2.2	2.2	2.2	1.1
67.5°	1.1	1.1	1.1	1.1	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	2.2	1.1	2.2	1.1	1.1
75°	0.0	0.0	0.0	0.0	0.0
77.5°	1.1	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	1.1	1.1	0.0
87.5°	1.1	0.0	1.1	0.0	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)