

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: P123795

Luminaire Tested: **ELSG406930WH (35° BEAM - 0° TILT)**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P123795
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: ELSG406930WH (35° 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: 820.0 lumens
Efficiency: N/A
Efficacy: 63.1 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

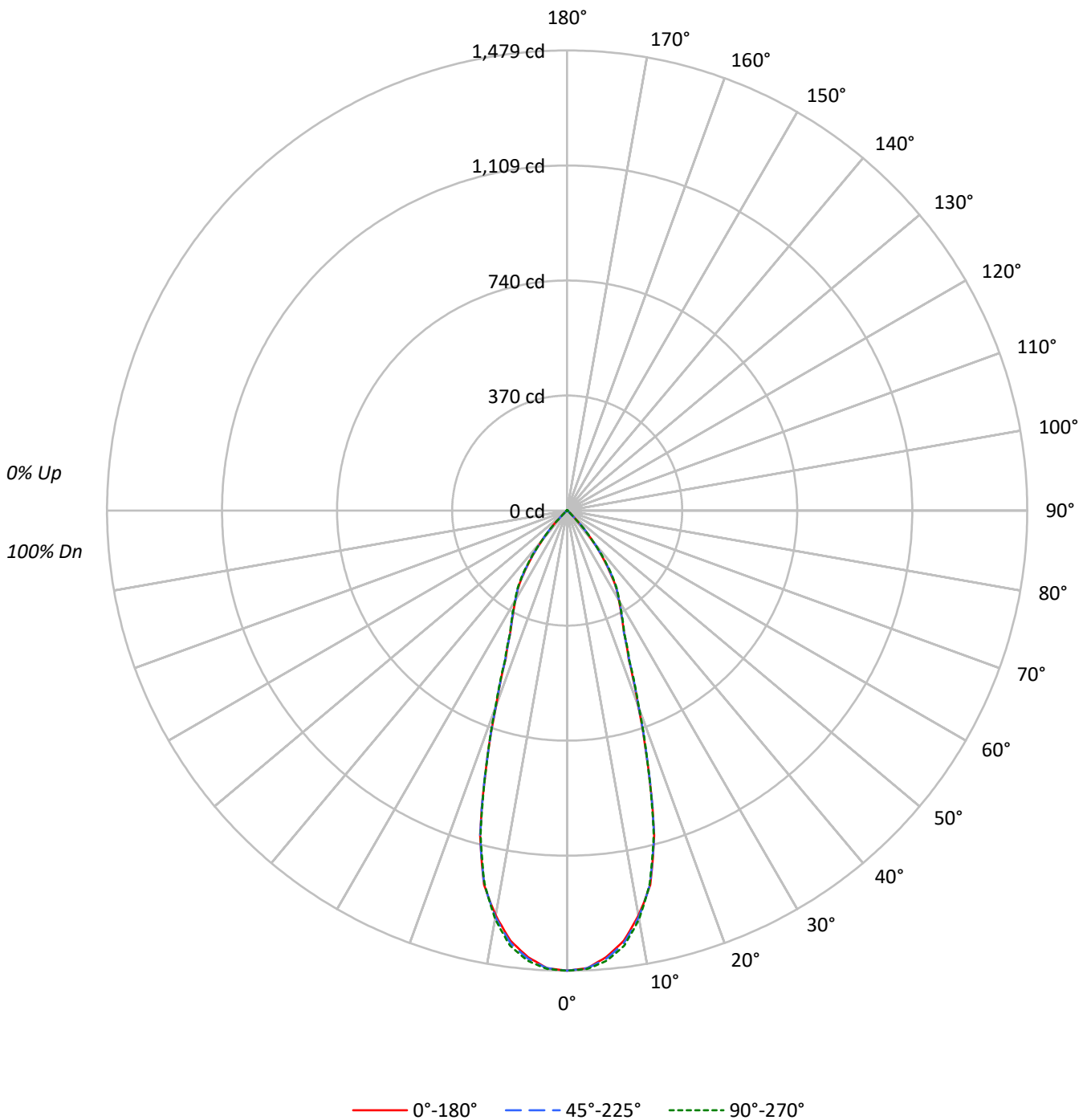
Input Watts (W): 13
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	111	109	107	111	109	107	105	105	104	102	101	100	99	98	97	96	94
2	109	104	101	97	107	103	99	96	99	97	94	96	94	92	94	92	90	89
3	104	98	93	90	102	97	92	89	94	91	88	92	89	86	89	87	85	84
4	99	92	87	83	98	91	87	83	89	85	82	87	84	81	85	82	80	79
5	95	87	82	78	93	86	81	78	85	80	77	83	79	76	81	78	76	74
6	91	83	77	73	89	82	77	73	80	76	72	79	75	72	78	74	71	70
7	87	78	73	69	85	78	72	69	76	72	68	75	71	68	74	70	68	66
8	83	74	69	65	82	74	69	65	73	68	65	72	68	64	71	67	64	63
9	80	71	65	62	79	70	65	62	69	65	61	69	64	61	68	64	61	60
10	76	68	62	59	75	67	62	59	66	62	58	66	61	58	65	61	58	57

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	572995	572995	572995
5°	560325	562464	564993
10°	519941	522066	524230
15°	433623	433182	431016
20°	274926	275833	278060
25°	185047	184107	185047
30°	148686	149134	149626
35°	111687	113721	116843
40°	64698	65254	65810
45°	22139	20989	20386
50°	6571	5908	5908
55°	3716	3716	2973
60°	1705	1705	1705
65°	2017	2017	2017
70°	3739	2493	2493
75°	0	0	0
80°	0	0	0
85°	4891	0	4891



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.4	16.4
10°-20°	286.1	34.9
20°-30°	207.7	25.3
30°-40°	147.0	17.9
40°-50°	38.2	4.7
50°-60°	3.9	0.5
60°-70°	1.7	0.2
70°-80°	0.7	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°	628.2	76.6
0°-40°	775.2	94.5
0°-60°	817.3	99.7
0°-90°	820.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	820.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1479	1479	1479	1479	1479	
5°	1440	1445	1446	1450	1452	134
15°	1081	1082	1080	1078	1074	286
25°	433	430	431	432	433	207
35°	236	238	240	245	247	145
45°	40	40	38	39	37	39
55°	6	7	6	6	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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1478.7	1478.7	1478.7	1478.7	1478.7
2.5°	1472.2	1473.3	1472.2	1473.3	1474.4
5°	1440.5	1444.9	1446.0	1450.3	1452.5
7.5°	1394.6	1397.9	1401.1	1408.8	1409.9
10°	1321.4	1323.5	1326.8	1331.2	1332.3
12.5°	1232.8	1231.7	1230.6	1228.5	1227.4
15°	1080.9	1082.0	1079.8	1077.6	1074.4
17.5°	865.6	868.9	867.8	871.1	866.7
20°	666.7	666.7	668.9	671.1	674.3
22.5°	517.0	519.1	520.2	521.3	523.5
25°	432.8	429.5	430.6	431.7	432.8
27.5°	377.1	377.1	379.2	380.3	382.5
30°	332.3	331.2	333.3	334.4	334.4
32.5°	291.8	291.8	292.9	296.2	297.3
35°	236.1	238.3	240.4	244.8	247.0
37.5°	182.5	183.6	185.8	190.2	189.1
40°	127.9	126.8	129.0	130.1	130.1
42.5°	82.0	80.9	80.9	80.9	80.9
45°	40.4	40.4	38.3	39.3	37.2
47.5°	15.3	14.2	14.2	14.2	16.4
50°	10.9	10.9	9.8	9.8	9.8
52.5°	5.5	4.4	4.4	5.5	5.5
55°	5.5	6.6	5.5	5.5	4.4
57.5°	1.1	2.2	0.0	0.0	0.0
60°	2.2	2.2	2.2	2.2	2.2
62.5°	2.2	2.2	2.2	2.2	2.2
65°	2.2	1.1	2.2	1.1	2.2
67.5°	0.0	1.1	1.1	1.1	0.0
70°	3.3	2.2	2.2	2.2	2.2
72.5°	1.1	0.0	1.1	1.1	1.1
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	1.1	1.1	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	1.1	1.1	0.0	1.1	0.0
85°	1.1	1.1	0.0	0.0	1.1
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)