

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: P123797

Luminaire Tested: **ELSG406940WH (35° BEAM - 0° TILT)**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P123797
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: ELSG406940WH (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, 4000K CCT, 90CRI
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 910.0 lumens
Efficiency: N/A
Efficacy: 70.0 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

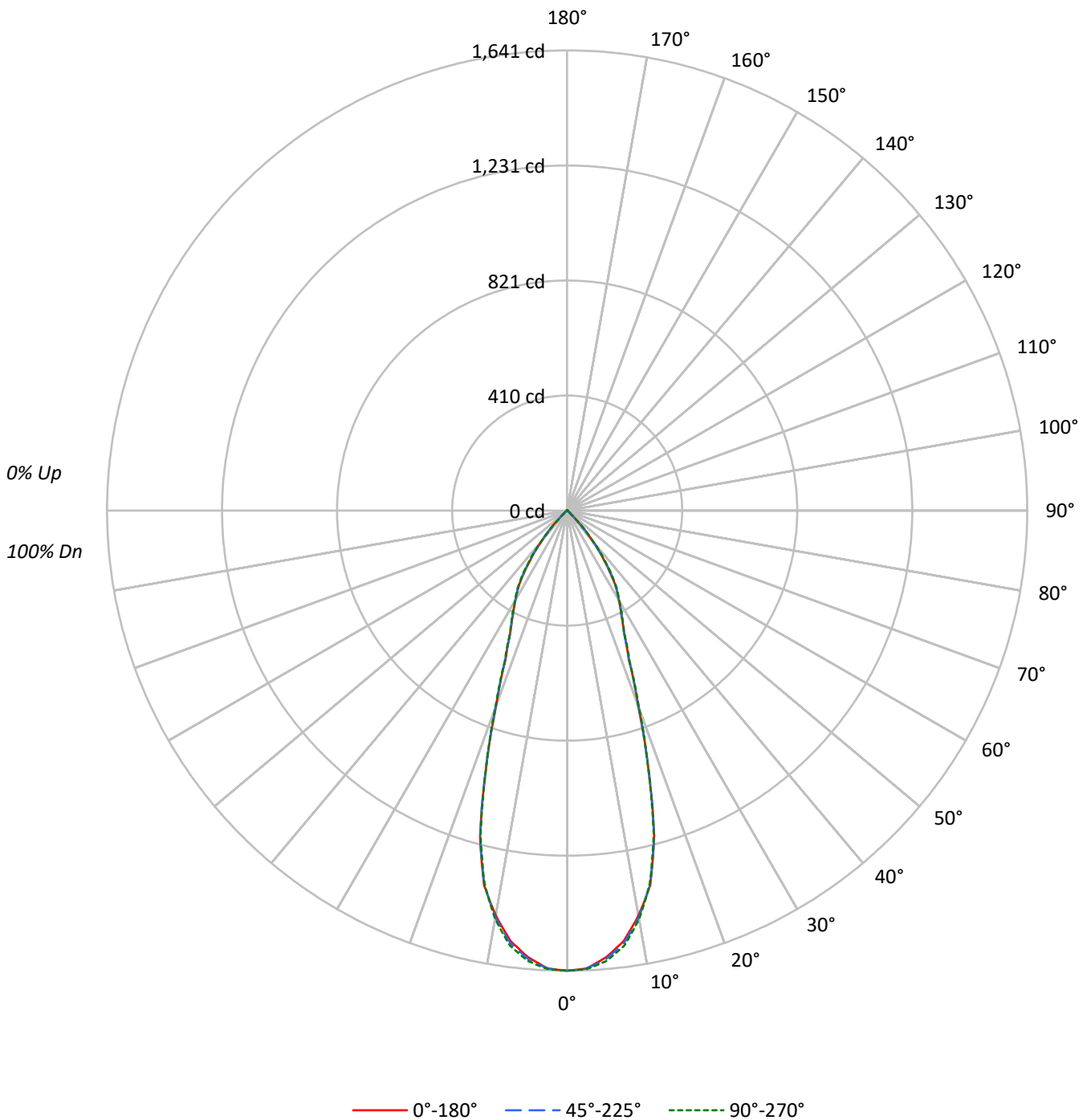
Input Watts (W): 13
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	635887	635887	635887
5°	621823	624196	626996
10°	576995	579356	581756
15°	481202	480721	478314
20°	305111	306101	308616
25°	205356	204330	205356
30°	164973	165510	166047
35°	123939	126210	129663
40°	71779	72386	72993
45°	24606	23290	22578
50°	7294	6571	6571
55°	4121	4121	3310
60°	1860	1860	1860
65°	2201	2201	2201
70°	4079	2719	2719
75°	0	0	0
80°	0	0	0
85°	5335	0	5335



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.2	16.4
10°-20°	317.5	34.9
20°-30°	230.5	25.3
30°-40°	163.1	17.9
40°-50°	42.5	4.7
50°-60°	4.3	0.5
60°-70°	1.9	0.2
70°-80°	0.7	0.1
80°-90°	0.4	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°	697.2	76.6
0°-40°	860.3	94.5
0°-60°	907.0	99.7
0°-90°	910.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	910.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1641	1641	1641	1641	1641	
5°	1599	1603	1605	1610	1612	149
15°	1200	1201	1198	1196	1192	317
25°	480	477	478	479	480	230
35°	262	264	267	272	274	161
45°	45	45	42	44	41	43
55°	6	7	6	6	5	5
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°	1641.0	1641.0	1641.0	1641.0	1641.0
2.5°	1633.8	1635.0	1633.8	1635.0	1636.2
5°	1598.6	1603.4	1604.7	1609.5	1611.9
7.5°	1547.6	1551.3	1554.9	1563.4	1564.6
10°	1466.4	1468.8	1472.4	1477.3	1478.5
12.5°	1368.1	1366.9	1365.7	1363.3	1362.1
15°	1199.5	1200.8	1198.3	1195.9	1192.3
17.5°	960.6	964.2	963.0	966.7	961.8
20°	739.9	739.9	742.3	744.7	748.4
22.5°	573.7	576.1	577.3	578.5	581.0
25°	480.3	476.7	477.9	479.1	480.3
27.5°	418.4	418.4	420.9	422.1	424.5
30°	368.7	367.5	369.9	371.1	371.1
32.5°	323.8	323.8	325.1	328.7	329.9
35°	262.0	264.4	266.8	271.7	274.1
37.5°	202.6	203.8	206.2	211.0	209.8
40°	141.9	140.7	143.1	144.3	144.3
42.5°	91.0	89.8	89.8	89.8	89.8
45°	44.9	44.9	42.5	43.7	41.2
47.5°	17.0	15.8	15.8	15.8	18.2
50°	12.1	12.1	10.9	10.9	10.9
52.5°	6.1	4.9	4.9	6.1	6.1
55°	6.1	7.3	6.1	6.1	4.9
57.5°	1.2	2.4	0.0	0.0	0.0
60°	2.4	2.4	2.4	2.4	2.4
62.5°	2.4	2.4	2.4	2.4	2.4
65°	2.4	1.2	2.4	1.2	2.4
67.5°	0.0	1.2	1.2	1.2	0.0
70°	3.6	2.4	2.4	2.4	2.4
72.5°	1.2	0.0	1.2	1.2	1.2
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	1.2	1.2	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	1.2	1.2	0.0	1.2	0.0
85°	1.2	1.2	0.0	0.0	1.2
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)