

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: P123821

Luminaire Tested: **ELSG406940WH (50° BEAM - 0° TILT)**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P123821  
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: ELSG406940WH (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, 4000K CCT, 90CRI  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 900.0 lumens  
Efficiency: N/A  
Efficacy: 69.2 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

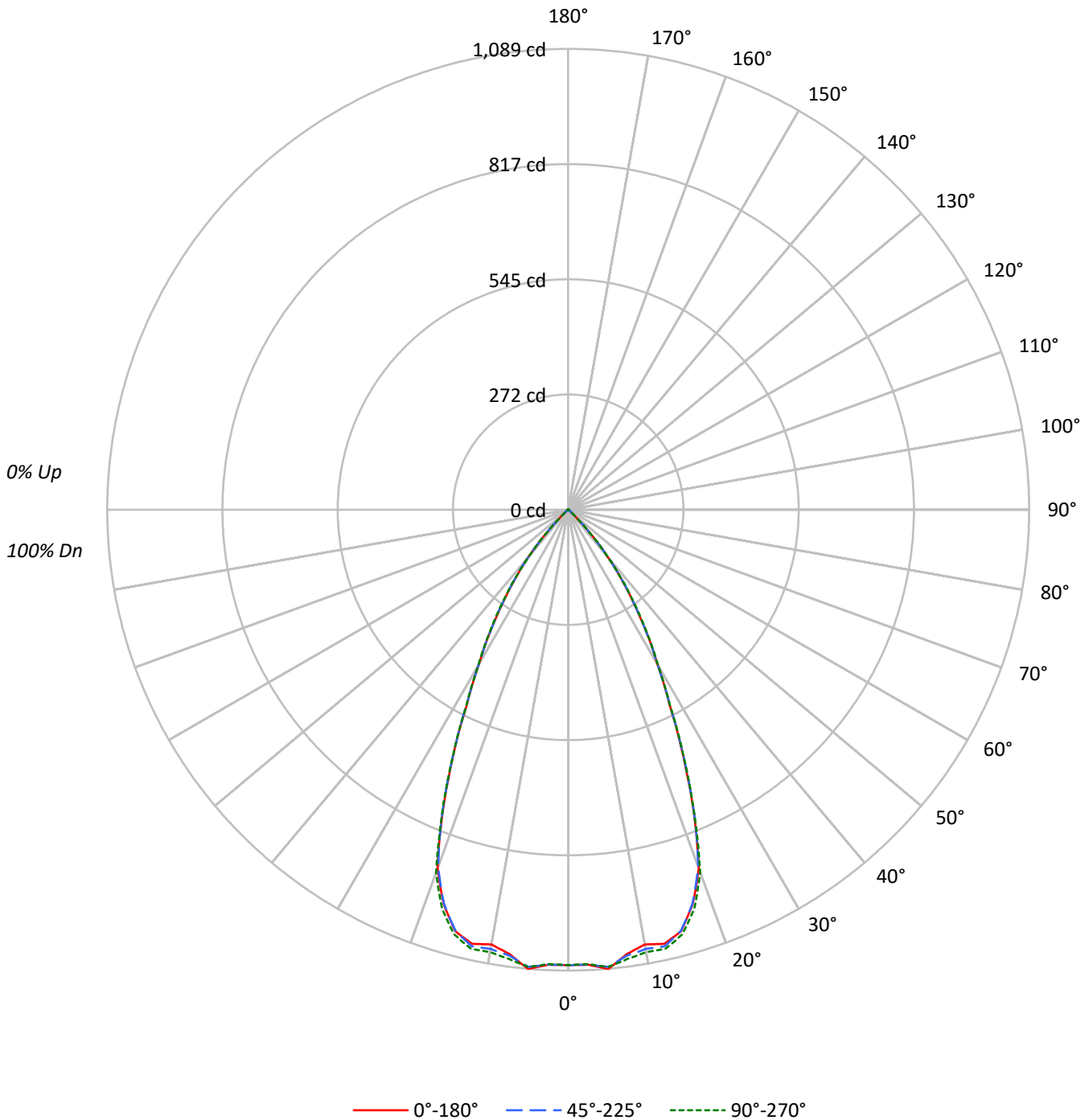
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	100	
1	114	111	109	106	111	109	107	105	105	103	102	101	100	99	98	97	96	94	94	94	94	
2	108	104	100	97	106	102	98	95	99	96	93	96	93	91	93	91	90	88	88	88	88	
3	103	97	92	88	101	96	91	88	93	89	86	91	88	85	88	86	84	82	82	82	82	
4	98	91	86	82	96	90	85	81	88	84	80	86	82	79	84	81	78	77	77	77	77	
5	94	86	80	76	92	85	79	75	83	78	75	81	77	74	80	76	74	72	72	72	72	
6	89	81	75	71	88	80	74	70	78	74	70	77	73	69	76	72	69	68	68	68	68	
7	85	76	70	66	84	75	70	66	74	69	66	73	69	65	72	68	65	64	64	64	64	
8	81	72	66	62	80	71	66	62	70	65	62	69	65	61	68	64	61	60	60	60	60	
9	77	68	62	58	76	68	62	58	67	62	58	66	61	58	65	61	58	56	56	56	56	
10	74	64	59	55	73	64	59	55	63	58	55	63	58	55	62	58	55	53	53	53	53	

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	530876	530876	530876
5°	539491	537114	537114
10°	522634	528094	531752
15°	526618	526005	530960
20°	473747	471857	478840
25°	350366	351727	352380
30°	240758	240758	242125
35°	162381	163827	166778
40°	93840	93840	93840
45°	27980	27980	27142
50°	6524	6524	6524
55°	3097	2064	3097
60°	3552	3552	2368
65°	2802	2802	1401
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	6793	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.1	11.3
10°-20°	284.8	31.7
20°-30°	294.7	32.7
30°-40°	171.1	19.0
40°-50°	40.6	4.5
50°-60°	4.2	0.5
60°-70°	1.6	0.2
70°-80°	0.5	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°	681.6	75.7
0°-40°	852.8	94.8
0°-60°	897.6	99.7
0°-90°	900.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	900.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1076	1076	1076	1076	1076	
5°	1089	1089	1084	1084	1084	102
15°	1031	1031	1030	1040	1040	284
25°	644	642	646	644	647	294
35°	270	271	272	276	277	170
45°	40	40	40	40	39	41
55°	4	4	2	4	4	4
65°	2	2	2	2	1	2
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°	1076.0	1076.0	1076.0	1076.0	1076.0
2.5°	1076.0	1077.2	1076.0	1076.0	1074.7
5°	1089.3	1089.3	1084.5	1084.5	1084.5
7.5°	1059.0	1060.2	1062.6	1068.7	1071.1
10°	1043.2	1046.8	1054.1	1062.6	1061.4
12.5°	1050.5	1051.7	1056.5	1066.2	1062.6
15°	1031.0	1031.0	1029.8	1039.5	1039.5
17.5°	977.6	977.6	976.4	984.9	989.7
20°	902.3	901.1	898.7	902.3	912.0
22.5°	776.0	778.4	778.4	778.4	779.6
25°	643.6	642.4	646.1	643.6	647.3
27.5°	518.6	517.3	519.8	521.0	521.0
30°	422.6	422.6	422.6	423.8	425.0
32.5°	344.9	343.7	344.9	347.3	348.5
35°	269.6	270.8	272.0	275.7	276.9
37.5°	206.4	206.4	208.9	210.1	210.1
40°	145.7	144.5	145.7	145.7	145.7
42.5°	87.4	87.4	87.4	87.4	88.7
45°	40.1	40.1	40.1	40.1	38.9
47.5°	13.4	13.4	13.4	12.1	13.4
50°	8.5	7.3	8.5	8.5	8.5
52.5°	6.1	6.1	6.1	6.1	6.1
55°	3.6	3.6	2.4	3.6	3.6
57.5°	3.6	4.9	3.6	3.6	3.6
60°	3.6	3.6	3.6	2.4	2.4
62.5°	1.2	1.2	2.4	1.2	1.2
65°	2.4	2.4	2.4	2.4	1.2
67.5°	1.2	1.2	1.2	1.2	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	2.4	1.2	2.4	1.2	1.2
75°	0.0	0.0	0.0	0.0	0.0
77.5°	1.2	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	1.2	1.2	0.0
87.5°	1.2	0.0	1.2	0.0	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)