

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: P358654

Luminaire Tested: **HL36SAR13FLD2WED010TLS3PIN2GMWWB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P358654  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1908-462-23)  
Test Lab: INNOVATION CENTER (G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HL36SAR13FLD2WED010TLS3PIN2GMWWB  
Description: HL3 13W Square, Flood optic with pin-hole trim, Lensed, Matte White  
Light Source: (1) 3100K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 910.0 lumens  
Efficiency: N/A  
Efficacy: 63.2 lumens/watt  
Spacing Criteria (0/90/45): 0.58 / 0.58 / 0.57  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

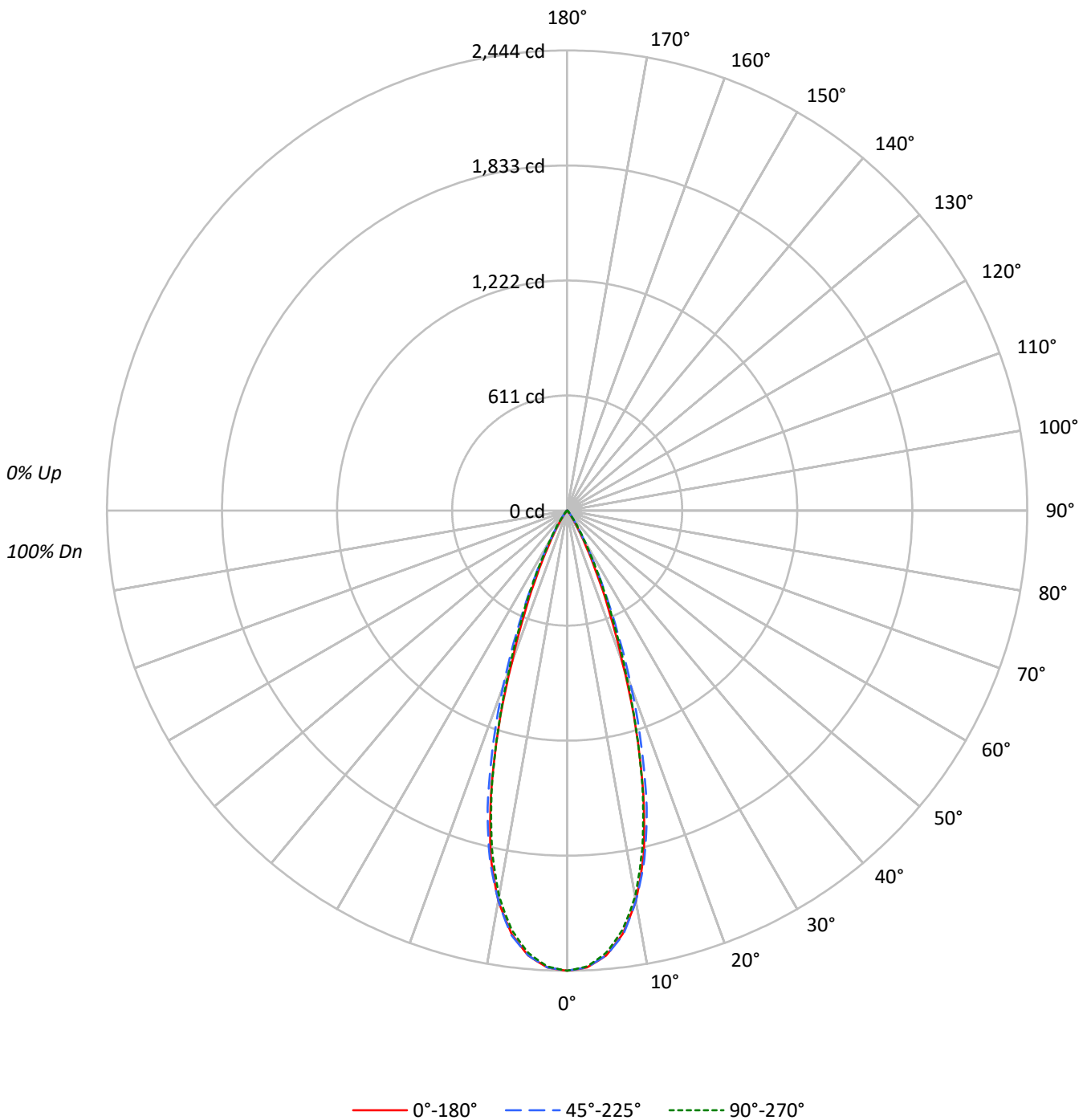
Input Watts (W): 14.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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				
1	115	112	110	108	112	110	108	107	106	105	103	103	101	100	99	98	97	96				
2	110	106	103	100	108	105	102	99	102	99	97	99	97	95	96	95	93	92				
3	106	101	97	94	105	100	96	93	97	94	92	95	93	91	93	91	89	88				
4	103	97	92	89	101	96	92	89	94	90	88	92	89	87	90	88	86	84				
5	99	93	88	85	98	92	87	84	90	86	84	88	85	83	87	84	82	81				
6	96	89	84	81	94	88	84	81	87	83	80	85	82	80	84	81	79	78				
7	92	85	81	77	91	85	80	77	84	80	77	82	79	76	81	78	76	75				
8	89	82	78	74	88	82	77	74	81	77	74	80	76	74	79	76	73	72				
9	87	79	75	72	86	79	74	71	78	74	71	77	74	71	76	73	71	70				
10	84	76	72	69	83	76	72	69	75	71	69	75	71	69	74	71	68	67				

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

	0°	45°	90°
0°	946971	946971	946971
5°	922815	922465	917758
10°	828112	828466	818983
15°	626425	654708	623818
20°	353111	409647	371049
25°	160463	194924	187826
30°	61390	77945	79198
35°	20152	28478	29802
40°	6576	11230	11230
45°	3069	4548	5096
50°	2231	2773	2773
55°	1892	1892	2500
60°	1472	2170	2170
65°	1742	2567	2567
70°	2153	3172	3172
75°	2845	2845	2845
80°	2008	2008	2008
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	217.7	23.9
10°-20°	425.8	46.8
20°-30°	209.3	23.0
30°-40°	42.4	4.7
40°-50°	7.1	0.8
50°-60°	2.9	0.3
60°-70°	2.6	0.3
70°-80°	1.9	0.2
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°	852.8	93.7
0°-40°	895.3	98.4
0°-60°	905.2	99.5
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°	2444	2444	2444	2444	2444	
5°	2372	2372	2372	2363	2359	218
15°	1562	1588	1632	1586	1555	416
25°	375	397	456	448	439	186
35°	43	51	60	66	63	33
45°	6	6	8	9	9	5
55°	3	3	3	4	4	3
65°	2	3	3	3	3	2
75°	2	2	2	2	2	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2443.8	2443.8	2443.8	2443.8	2443.8
2.5°	2428.9	2428.0	2428.0	2424.3	2423.4
5°	2372.4	2371.5	2371.5	2363.1	2359.4
7.5°	2266.8	2270.5	2273.2	2260.3	2247.3
10°	2104.6	2107.4	2105.5	2088.8	2081.4
12.5°	1877.5	1888.7	1897.0	1866.4	1842.3
15°	1561.5	1587.5	1632.0	1585.6	1555.0
17.5°	1215.9	1264.0	1311.3	1277.0	1218.6
20°	856.3	910.0	993.4	943.4	899.8
22.5°	595.0	620.0	698.7	675.6	648.7
25°	375.3	396.6	455.9	447.6	439.3
27.5°	226.1	248.4	288.2	291.0	278.9
30°	137.2	146.4	174.2	179.8	177.0
32.5°	79.7	87.1	101.9	110.3	106.6
35°	42.6	51.0	60.2	65.8	63.0
37.5°	23.2	28.7	36.1	38.9	37.1
40°	13.0	15.8	22.2	23.2	22.2
42.5°	8.3	9.3	13.9	13.9	13.9
45°	5.6	6.5	8.3	9.3	9.3
47.5°	4.6	4.6	5.6	6.5	6.5
50°	3.7	3.7	4.6	4.6	4.6
52.5°	2.8	2.8	3.7	3.7	3.7
55°	2.8	2.8	2.8	3.7	3.7
57.5°	2.8	2.8	2.8	2.8	3.7
60°	1.9	2.8	2.8	2.8	2.8
62.5°	2.8	2.8	2.8	2.8	2.8
65°	1.9	2.8	2.8	2.8	2.8
67.5°	1.9	1.9	2.8	2.8	2.8
70°	1.9	1.9	2.8	2.8	2.8
72.5°	1.9	1.9	1.9	1.9	1.9
75°	1.9	1.9	1.9	1.9	1.9
77.5°	1.9	1.9	0.9	1.9	1.9
80°	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.9	0.0	0.9	0.9
85°	0.0	0.0	0.0	0.0	0.0
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)