

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: P358703

Luminaire Tested: **HL36SAR13WFLD2WED010TLS3PINMWWB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P358703  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1908-462-29)  
Test Lab: INNOVATION CENTER (G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HL36SAR13WFLD2WED010TLS3PINMWWB  
Description: HL3 13W Square, Wide Flood optic with pin-hole trim, No Lens, Matte White  
Light Source: (1) 3100K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 973.9 lumens  
Efficiency: N/A  
Efficacy: 67.6 lumens/watt  
Spacing Criteria (0/90/45): 0.75 / 0.75 / 0.8  
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')  
CIE Type: Direct

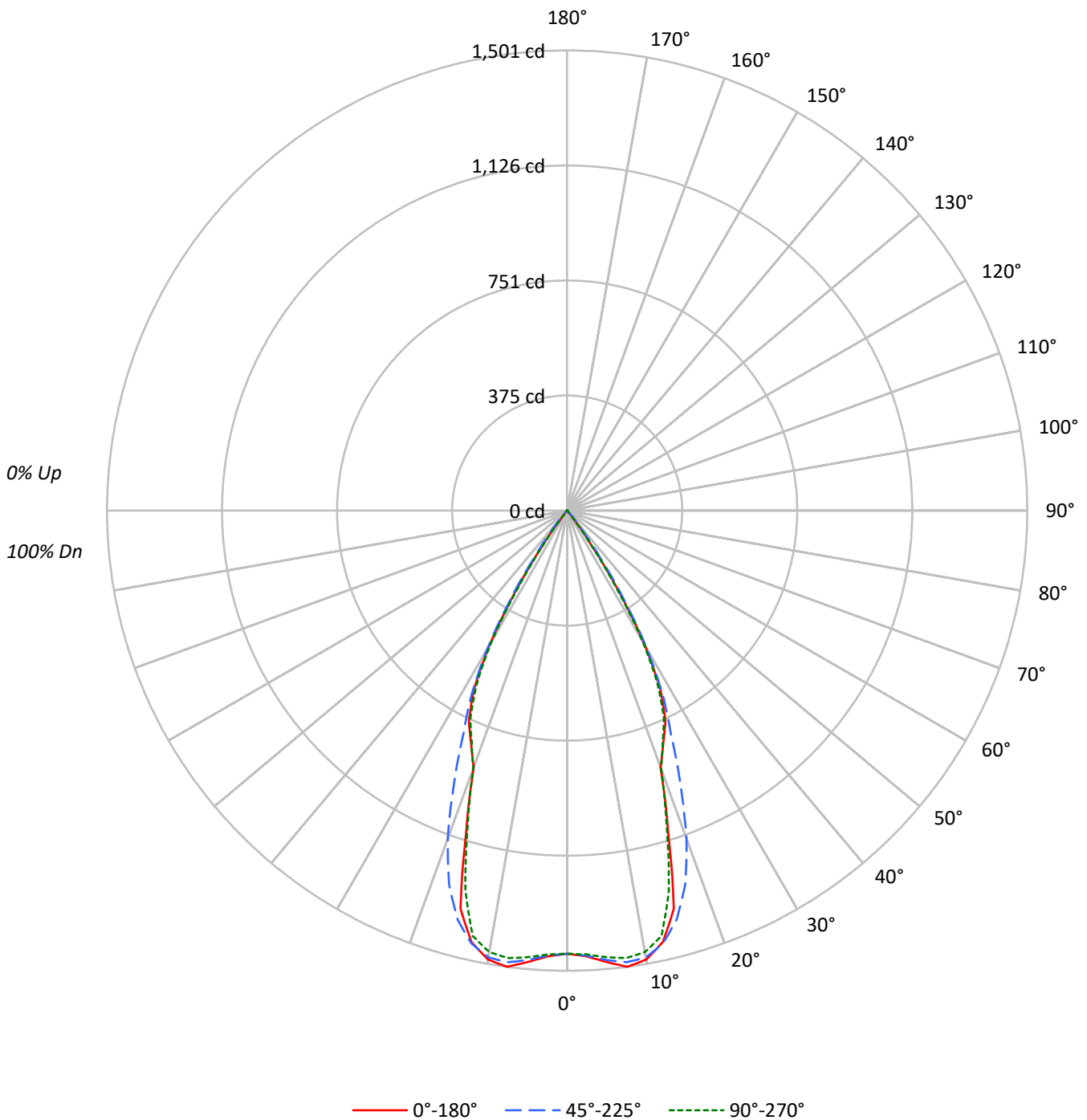
Input Watts (W): 14.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	114	112	109	107	112	109	107	106	105	104	102	102	101	99	98	97	97	95
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	93	91	90
3	105	99	95	91	103	98	94	90	95	92	89	93	90	88	91	88	86	85
4	100	94	89	85	99	92	88	85	90	87	84	88	85	83	87	84	82	80
5	96	89	84	80	94	88	83	79	86	82	79	84	81	78	83	80	77	76
6	92	84	79	75	91	83	78	75	82	78	74	81	77	74	79	76	73	72
7	88	80	75	71	87	79	74	71	78	74	70	77	73	70	76	72	70	69
8	85	76	71	67	83	76	71	67	75	70	67	74	70	67	73	69	66	65
9	81	73	67	64	80	72	67	64	71	67	64	70	66	63	70	66	63	62
10	78	69	64	61	77	69	64	61	68	64	61	67	63	60	67	63	60	59

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

	0°	45°	90°
0°	560053	560053	560053
5°	574834	572306	568688
10°	585140	582189	575264
15°	539291	553774	514379
20°	367379	469481	368905
25°	324260	341277	319472
30°	226900	233119	221083
35°	66227	89028	62253
40°	961	17806	1872
45°	493	1041	493
50°	543	543	543
55°	608	608	608
60°	697	697	697
65°	825	825	825
70°	1020	1020	1020
75°	1347	1347	1347
80°	2008	2008	2008
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.8	14.5
10°-20°	362.1	37.2
20°-30°	345.0	35.4
30°-40°	120.5	12.4
40°-50°	2.4	0.3
50°-60°	0.8	0.1
60°-70°	0.9	0.1
70°-80°	1.0	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°	847.9	87.1
0°-40°	968.4	99.4
0°-60°	971.7	99.8
0°-90°	973.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	973.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1445	1445	1445	1445	1445	
5°	1478	1476	1471	1466	1462	142
15°	1344	1374	1380	1333	1282	350
25°	758	759	798	754	747	335
35°	140	169	188	158	132	111
45°	1	1	2	1	1	1
55°	1	1	1	1	1	1
65°	1	1	1	1	1	1
75°	1	1	1	1	1	1
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°	1445.3	1445.3	1445.3	1445.3	1445.3
2.5°	1455.5	1455.5	1452.8	1450.0	1449.0
5°	1477.8	1475.9	1471.3	1465.7	1462.0
7.5°	1501.0	1496.3	1486.1	1475.0	1472.2
10°	1487.1	1486.1	1479.6	1465.7	1462.0
12.5°	1441.6	1449.0	1445.3	1430.5	1421.2
15°	1344.3	1374.0	1380.4	1333.2	1282.2
17.5°	1093.0	1207.1	1279.4	1170.9	1080.1
20°	890.9	973.4	1138.5	967.9	894.6
22.5°	819.6	833.5	964.2	836.2	814.0
25°	758.4	759.3	798.2	753.7	747.2
27.5°	659.2	655.5	673.1	647.1	640.6
30°	507.1	502.5	521.0	502.5	494.1
32.5°	321.7	331.0	345.8	330.0	296.7
35°	140.0	168.7	188.2	158.5	131.6
37.5°	31.5	52.8	86.2	52.8	27.8
40°	1.9	8.3	35.2	11.1	3.7
42.5°	0.9	1.9	9.3	1.9	0.9
45°	0.9	0.9	1.9	0.9	0.9
47.5°	0.9	0.9	0.9	0.9	0.9
50°	0.9	0.9	0.9	0.9	0.9
52.5°	0.9	0.9	0.9	0.9	0.9
55°	0.9	0.9	0.9	0.9	0.9
57.5°	0.9	0.9	0.9	0.9	0.9
60°	0.9	0.9	0.9	0.9	0.9
62.5°	0.9	0.9	0.9	0.9	0.9
65°	0.9	0.9	0.9	0.9	0.9
67.5°	0.9	0.9	0.9	0.9	0.9
70°	0.9	0.9	0.9	0.9	0.9
72.5°	0.9	0.9	0.9	0.9	0.9
75°	0.9	0.9	0.9	0.9	0.9
77.5°	0.9	0.9	0.9	0.9	0.9
80°	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.9	0.9	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)