

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: P358673

Luminaire Tested: **HL36AR13NFLD2WED010TL3RMW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P358673
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1908-462-9)
Test Lab: INNOVATION CENTER (G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HL36AR13NFLD2WED010TL3RMW
Description: HL3 13W Round, Narrow Flood optic with conical 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: 1060.0 lumens
Efficiency: N/A
Efficacy: 73.6 lumens/watt
Spacing Criteria (0/90/45): 0.43 / 0.42 / 0.4
Luminous Opening: Rectangular (W 0.27' x L: 0.27' x H: 0')
CIE Type: Direct

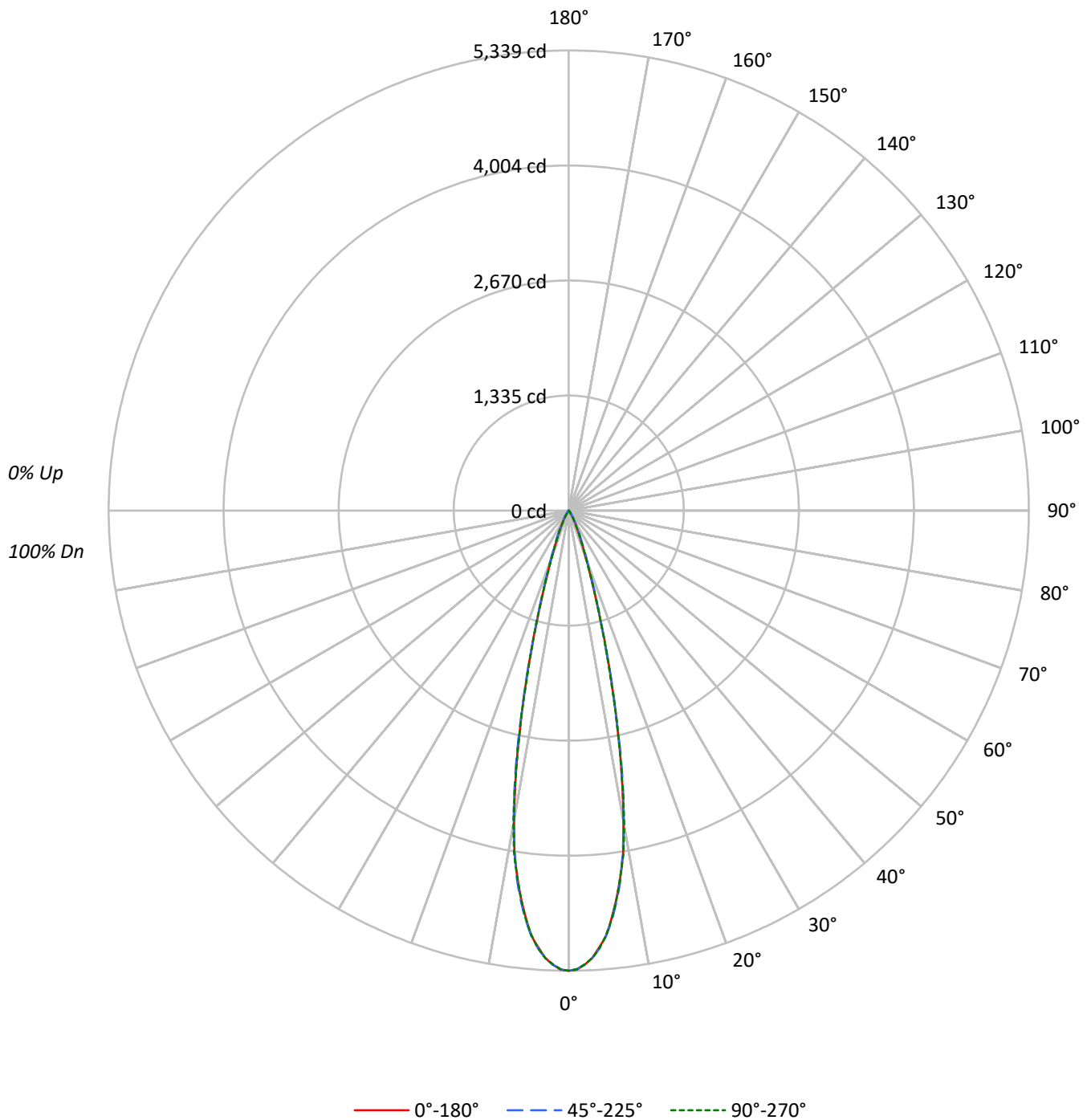
Input Watts (W): 14.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20				
RC	80				70					50					30				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	0
RCR																			
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	
1	115	113	111	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97	
2	112	108	106	103	110	107	104	102	104	102	100	101	99	98	98	97	96	94	
3	109	104	101	98	107	103	100	97	100	98	96	98	96	94	96	94	93	92	
4	106	101	97	94	104	100	96	94	98	95	92	96	93	91	94	92	90	89	
5	103	97	93	91	101	96	93	90	95	92	89	93	91	89	92	90	88	87	
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	
7	98	92	88	85	97	91	87	85	90	87	84	89	86	84	88	86	84	83	
8	95	89	85	83	94	89	85	83	88	85	82	87	84	82	86	84	82	81	
9	93	87	83	81	92	86	83	80	86	82	80	85	82	80	84	82	80	79	
10	91	85	81	79	90	84	81	79	84	81	78	83	80	78	83	80	78	77	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	783478	783478	783478
5°	729817	730495	729272
10°	544751	548476	551099
15°	257130	254456	256993
20°	88436	96260	87717
25°	36318	41127	35719
30°	14284	18063	13979
35°	3977	8294	3977
40°	1782	2835	1782
45°	394	1349	394
50°	205	434	205
55°	230	0	230
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	432.7	40.8
10°-20°	478.0	45.1
20°-30°	120.8	11.4
30°-40°	24.4	2.3
40°-50°	3.6	0.3
50°-60°	0.5	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	0.0	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°	1031.5	97.3
0°-40°	1055.9	99.6
0°-60°	1060.0	100.0
0°-90°	1060.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1060.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5339	5339	5339	5339	5339	
5°	4954	4954	4959	4966	4951	432
15°	1692	1672	1675	1690	1692	474
25°	224	231	254	233	221	115
35°	22	29	46	29	22	19
45°	2	4	6	4	2	2
55°	1	1	0	1	1	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5339.0	5339.0	5339.0	5339.0	5339.0
1°	5327.0	5324.2	5320.5	5321.4	5323.3
2°	5273.2	5276.9	5273.2	5272.3	5268.6
3°	5197.2	5192.6	5200.9	5191.7	5199.1
4°	5079.5	5086.9	5093.4	5091.6	5089.7
5°	4954.4	4954.4	4959.0	4965.5	4950.7
6°	4757.9	4781.0	4778.3	4782.0	4765.3
7°	4538.2	4560.4	4562.3	4567.8	4548.4
8°	4294.4	4301.8	4323.1	4316.7	4293.5
9°	4022.8	4020.0	4010.8	4022.8	4045.1
10°	3655.8	3677.1	3680.8	3667.8	3698.4
11°	3250.7	3271.1	3297.0	3294.3	3272.0
12°	2860.5	2857.7	2905.0	2903.1	2842.9
13°	2425.7	2460.0	2438.7	2432.2	2442.4
14°	2055.0	2057.8	2075.4	2047.6	2019.8
15°	1692.5	1672.2	1674.9	1689.8	1691.6
16°	1372.8	1361.6	1380.2	1381.1	1362.6
17°	1099.3	1129.9	1129.0	1120.6	1103.0
18°	870.4	891.7	920.4	896.3	896.3
19°	705.4	725.8	741.5	729.5	701.7
20°	566.3	585.8	616.4	592.3	561.7
22.5°	355.0	365.2	396.7	368.0	353.2
25°	224.3	230.8	254.0	232.7	220.6
27.5°	141.8	152.0	161.3	149.2	140.0
30°	84.3	96.4	106.6	95.5	82.5
32.5°	41.7	58.4	72.3	58.4	41.7
35°	22.2	28.7	46.3	28.7	22.2
37.5°	14.8	16.7	27.8	16.7	14.8
40°	9.3	11.1	14.8	11.1	9.3
42.5°	4.6	7.4	9.3	7.4	4.6
45°	1.9	3.7	6.5	3.7	1.9
47.5°	0.9	0.9	3.7	0.9	0.9
50°	0.9	0.9	1.9	0.9	0.9
52.5°	0.9	0.9	0.9	0.9	0.9
55°	0.9	0.9	0.0	0.9	0.9
57.5°	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.0	0.0	0.0	0.0	0.0
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)