

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: METALUX

Report Number: P294817

Luminaire Tested: **14CZ2-48HE-HRP-UNV-L940-CD1-U**

Issue Date: 12/2/2019

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P294817
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-48HE-HRP-UNV-L940-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (196) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3125.4 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

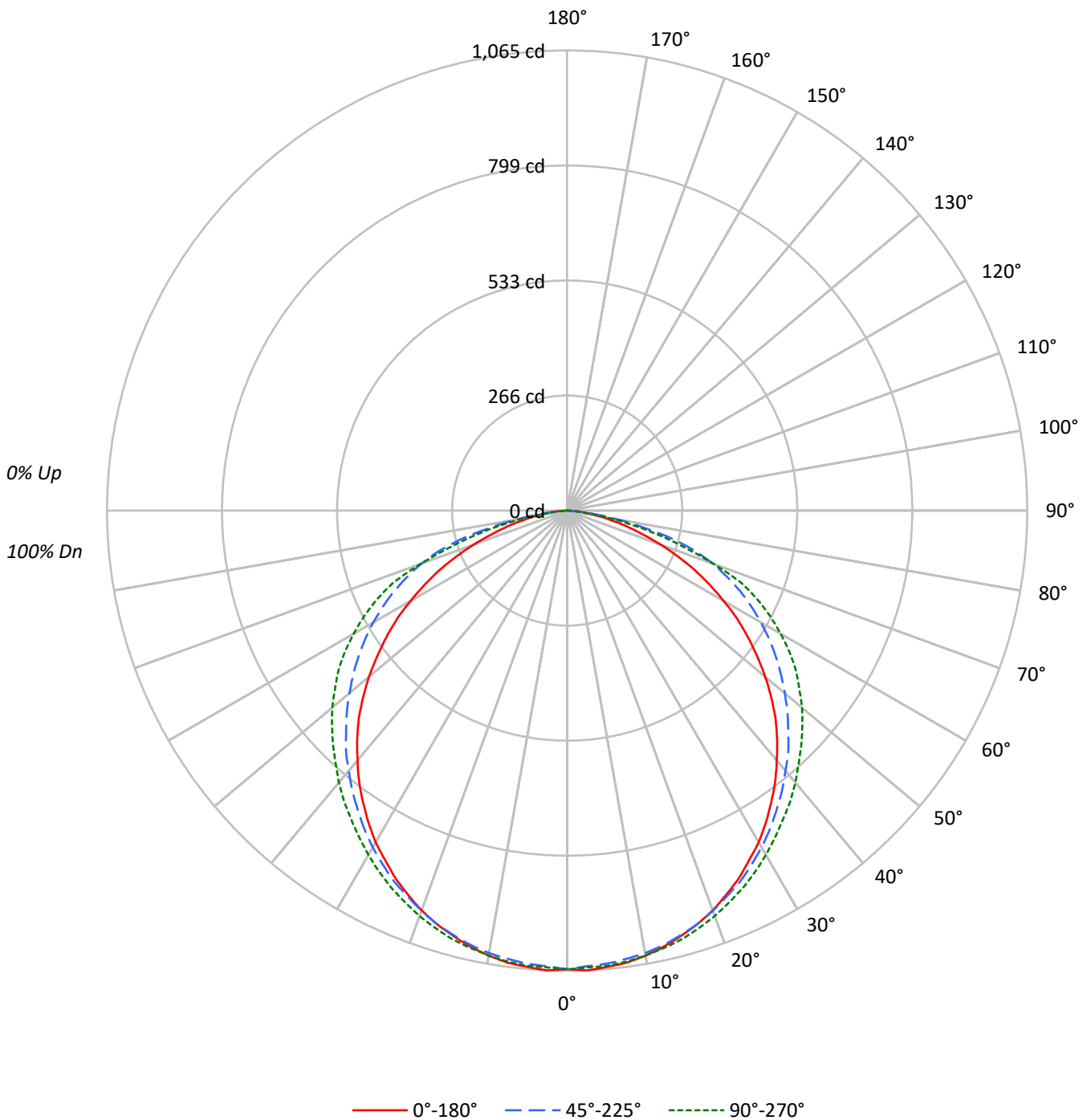
Input Watts (W): 36.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2856	2856	2856
5°	2864	2843	2857
10°	2857	2841	2857
15°	2839	2834	2861
20°	2820	2823	2859
25°	2790	2813	2860
30°	2755	2797	2858
35°	2706	2777	2864
40°	2651	2762	2886
45°	2596	2753	2917
50°	2506	2753	2971
55°	2397	2767	3034
60°	2253	2787	3073
65°	2078	2816	3091
70°	1810	2822	2846
75°	1492	2626	2299
80°	1173	1889	1539
85°	911	729	364



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.5	3.2
10°-20°	288.3	9.2
20°-30°	437.9	14.0
30°-40°	530.6	17.0
40°-50°	559.1	17.9
50°-60°	521.9	16.7
60°-70°	417.1	13.3
70°-80°	229.5	7.3
80°-90°	40.5	1.3
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°	826.7	26.5
0°-40°	1357.2	43.4
0°-60°	2438.3	78.0
0°-90°	3125.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3125.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1061	1061	1061	1061	1061	
5°	1060	1058	1053	1059	1058	101
15°	1019	1019	1017	1027	1027	288
25°	940	942	947	961	963	433
35°	824	831	845	867	872	515
45°	682	695	723	756	767	525
55°	511	537	590	631	647	456
65°	326	368	442	479	486	321
75°	144	205	253	227	221	154
85°	30	37	24	15	12	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1061.4	1061.4	1061.4	1061.4	1061.4
2.5°	1065.3	1062.4	1055.5	1061.4	1058.5
5°	1060.4	1057.5	1052.6	1059.4	1057.5
7.5°	1055.5	1051.6	1046.7	1054.5	1052.6
10°	1045.7	1042.7	1039.8	1046.7	1045.7
12.5°	1033.9	1032.9	1030.0	1037.8	1036.8
15°	1019.1	1019.1	1017.2	1027.0	1027.0
17.5°	1003.4	1002.4	1003.4	1014.2	1013.3
20°	984.8	984.8	985.7	998.5	998.5
22.5°	962.1	963.1	966.1	981.8	980.8
25°	939.5	941.5	947.4	961.2	963.1
27.5°	912.0	916.9	923.8	940.5	942.5
30°	886.5	889.4	900.2	916.0	919.9
32.5°	856.0	861.9	873.7	891.4	896.3
35°	823.6	831.4	845.2	866.8	871.7
37.5°	791.1	798.0	816.7	839.3	848.1
40°	754.8	766.6	786.2	811.8	821.6
42.5°	719.4	731.2	757.7	784.3	793.1
45°	682.1	694.8	723.3	755.8	766.6
47.5°	640.8	655.5	691.9	726.3	738.1
50°	598.5	617.2	657.5	695.8	709.6
52.5°	554.3	577.9	624.1	664.4	677.1
55°	511.0	536.6	589.7	630.9	646.7
57.5°	466.8	494.3	554.3	601.5	610.3
60°	418.7	452.1	517.9	559.2	571.0
62.5°	371.5	409.8	480.6	519.9	529.7
65°	326.3	367.6	442.3	478.6	485.5
67.5°	277.1	326.3	400.0	433.4	435.4
70°	230.0	287.0	358.7	374.4	361.7
72.5°	183.8	244.7	310.6	297.8	287.0
75°	143.5	205.4	252.6	227.0	221.1
77.5°	106.1	168.1	180.8	167.1	156.3
80°	75.7	132.7	121.9	104.2	99.3
82.5°	52.1	83.5	66.8	52.1	45.2
85°	29.5	37.3	23.6	14.7	11.8
87.5°	12.8	8.8	4.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)