

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: P294815

Luminaire Tested: **14CZ2-48HE-HRP-UNV-L930-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: P294815
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-L930-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (196) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3018.8 lumens
Efficiency: N/A
Efficacy: 81.8 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

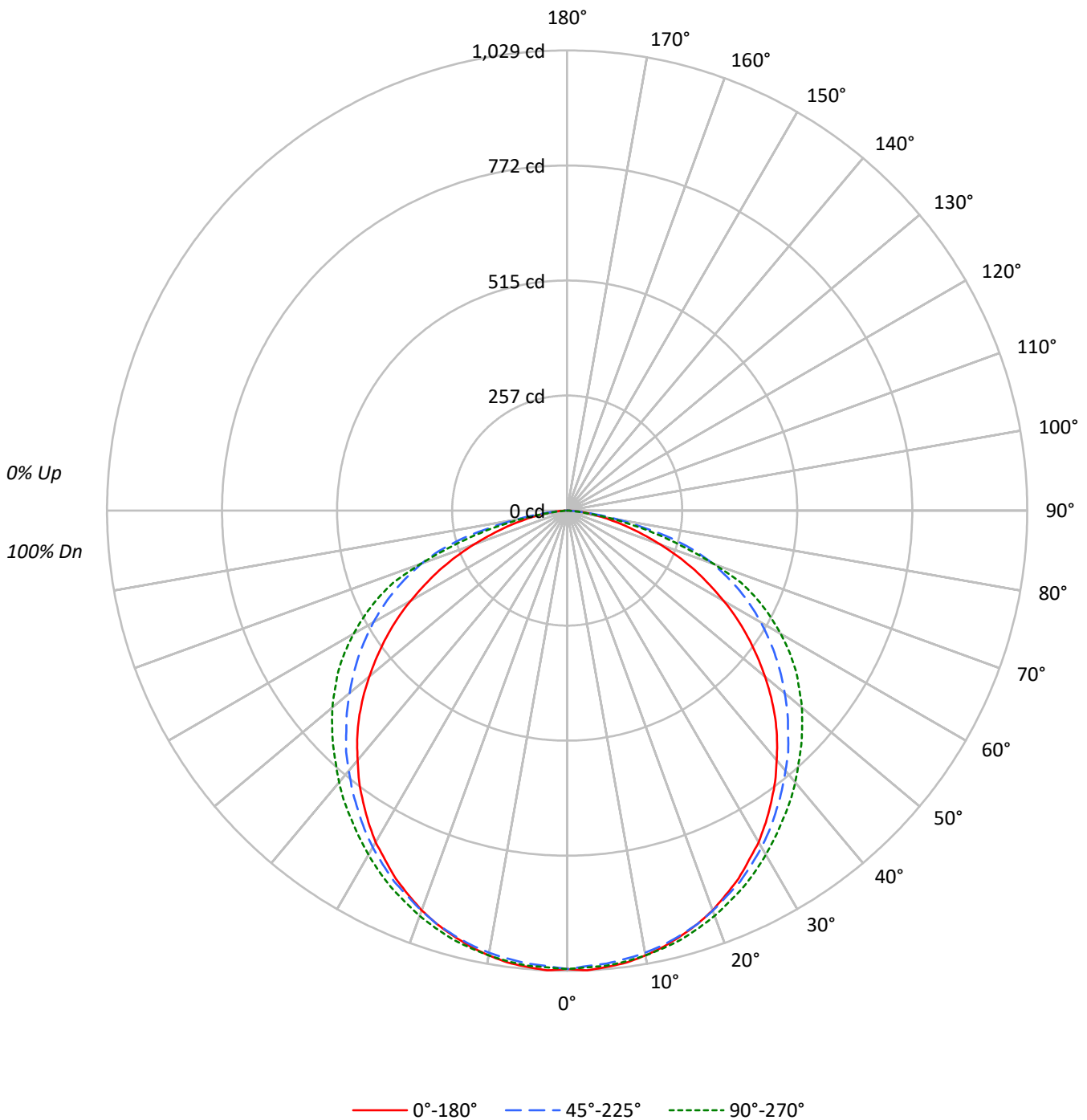
Input Watts (W): 36.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2759	2759	2759
5°	2767	2746	2759
10°	2760	2744	2760
15°	2742	2737	2764
20°	2724	2727	2762
25°	2695	2717	2762
30°	2660	2702	2761
35°	2613	2682	2766
40°	2561	2668	2788
45°	2507	2659	2818
50°	2420	2658	2869
55°	2316	2672	2930
60°	2176	2693	2968
65°	2006	2720	2986
70°	1747	2726	2748
75°	1441	2537	2221
80°	1133	1824	1486
85°	880	704	352



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.1	3.2
10°-20°	278.5	9.2
20°-30°	422.9	14.0
30°-40°	512.5	17.0
40°-50°	540.0	17.9
50°-60°	504.1	16.7
60°-70°	402.9	13.3
70°-80°	221.7	7.3
80°-90°	39.1	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°	798.5	26.5
0°-40°	1310.9	43.4
0°-60°	2355.1	78.0
0°-90°	3018.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3018.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1025	1025	1025	1025	1025	
5°	1024	1021	1017	1023	1021	97
15°	984	984	982	992	992	278
25°	908	909	915	928	930	418
35°	796	803	816	837	842	498
45°	659	671	699	730	740	507
55°	494	518	570	609	625	441
65°	315	355	427	462	469	310
75°	139	198	244	219	214	149
85°	28	36	23	14	11	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1025.2	1025.2	1025.2	1025.2	1025.2
2.5°	1029.0	1026.1	1019.5	1025.2	1022.3
5°	1024.2	1021.4	1016.6	1023.3	1021.4
7.5°	1019.5	1015.7	1010.9	1018.5	1016.6
10°	1010.0	1007.1	1004.3	1010.9	1010.0
12.5°	998.6	997.7	994.8	1002.4	1001.5
15°	984.4	984.4	982.5	992.0	992.0
17.5°	969.2	968.2	969.2	979.6	978.7
20°	951.1	951.1	952.1	964.4	964.4
22.5°	929.3	930.3	933.1	948.3	947.3
25°	907.5	909.4	915.1	928.4	930.3
27.5°	880.9	885.6	892.3	908.4	910.3
30°	856.2	859.1	869.5	884.7	888.5
32.5°	826.8	832.5	843.9	861.0	865.7
35°	795.5	803.1	816.3	837.2	842.0
37.5°	764.1	770.8	788.8	810.7	819.2
40°	729.0	740.4	759.4	784.1	793.6
42.5°	694.8	706.2	731.9	757.5	766.0
45°	658.8	671.1	698.6	730.0	740.4
47.5°	618.9	633.1	668.3	701.5	712.9
50°	578.1	596.1	635.0	672.1	685.4
52.5°	535.4	558.2	602.8	641.7	654.0
55°	493.6	518.3	569.5	609.4	624.6
57.5°	450.9	477.5	535.4	580.9	589.5
60°	404.4	436.7	500.3	540.1	551.5
62.5°	358.8	395.8	464.2	502.1	511.6
65°	315.1	355.0	427.2	462.3	468.9
67.5°	267.7	315.1	386.3	418.6	420.5
70°	222.1	277.2	346.5	361.7	349.3
72.5°	177.5	236.4	300.0	287.6	277.2
75°	138.6	198.4	244.0	219.3	213.6
77.5°	102.5	162.3	174.7	161.4	150.9
80°	73.1	128.1	117.7	100.6	95.9
82.5°	50.3	80.7	64.5	50.3	43.7
85°	28.5	36.1	22.8	14.2	11.4
87.5°	12.3	8.5	4.7	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)