

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: P294861

Luminaire Tested: **22CZ2-44HE-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: P294861
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-44HE-HRP-UNV-L940-CD1-U
Description: 2'X2' 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: 3070.3 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

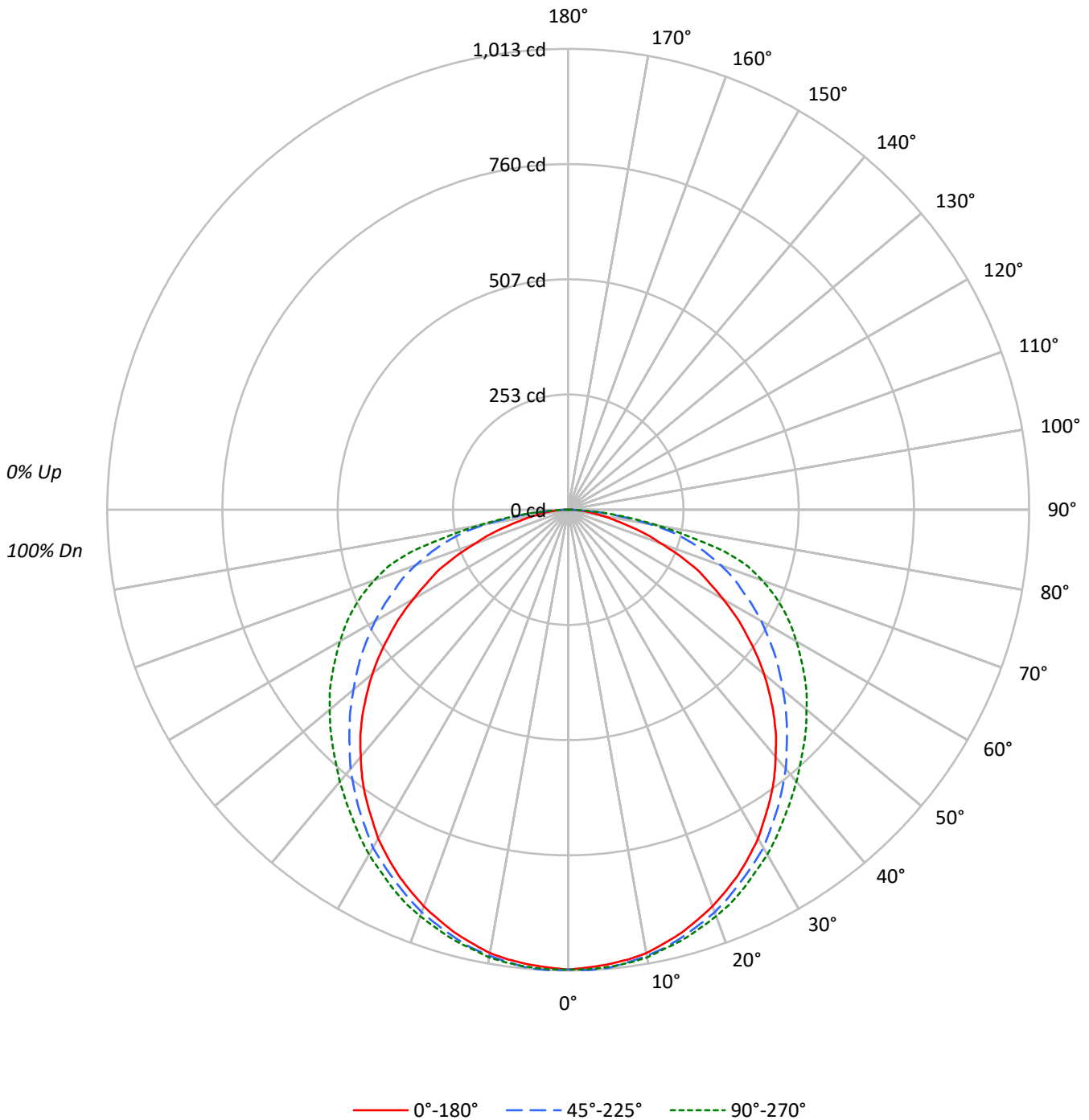
Input Watts (W): 35
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2721	2721	2721
5°	2710	2731	2726
10°	2704	2720	2731
15°	2682	2709	2725
20°	2657	2696	2723
25°	2628	2674	2720
30°	2594	2666	2720
35°	2545	2634	2717
40°	2490	2612	2742
45°	2432	2587	2786
50°	2352	2578	2862
55°	2244	2599	2971
60°	2116	2637	3117
65°	1998	2688	3330
70°	1707	2804	3566
75°	1430	2920	3706
80°	1170	2822	3092
85°	1016	2093	2272



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.8	3.1
10°-20°	274.1	8.9
20°-30°	415.4	13.5
30°-40°	501.6	16.3
40°-50°	527.0	17.2
50°-60°	495.9	16.2
60°-70°	413.5	13.5
70°-80°	274.0	8.9
80°-90°	73.0	2.4
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°	785.3	25.6
0°-40°	1286.9	41.9
0°-60°	2309.8	75.2
0°-90°	3070.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3070.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1011	1011	1011	1011	1011	
5°	1003	1005	1011	1011	1009	95
15°	963	966	972	976	978	271
25°	885	891	901	912	916	408
35°	775	782	802	819	827	484
45°	639	649	680	715	732	492
55°	478	500	554	610	633	428
65°	314	341	422	492	523	305
75°	138	192	281	339	356	149
85°	33	50	68	74	74	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1011.0	1011.0	1011.0	1011.0	1011.0
2.5°	1007.1	1009.1	1013.0	1013.0	1011.0
5°	1003.3	1005.2	1011.0	1011.0	1009.1
7.5°	997.5	999.4	1003.3	1007.1	1005.2
10°	989.7	991.6	995.5	999.4	999.4
12.5°	976.2	978.1	985.8	987.8	987.8
15°	962.6	966.5	972.3	976.2	978.1
17.5°	945.2	949.0	956.8	964.5	964.5
20°	927.7	931.6	941.3	949.0	951.0
22.5°	906.4	912.2	921.9	931.6	935.5
25°	885.1	890.9	900.6	912.2	916.1
27.5°	859.9	865.8	879.3	892.9	894.8
30°	834.8	840.6	858.0	869.6	875.4
32.5°	803.8	811.5	829.0	846.4	852.2
35°	774.7	782.5	801.8	819.3	827.0
37.5°	743.7	751.5	772.8	794.1	803.8
40°	708.9	718.6	743.7	767.0	780.5
42.5°	675.9	685.6	710.8	741.8	755.4
45°	639.1	648.8	679.8	714.7	732.1
47.5°	600.4	612.0	648.8	691.4	708.9
50°	561.7	575.2	615.9	664.3	683.7
52.5°	521.0	538.4	584.9	637.2	660.5
55°	478.4	499.7	553.9	610.1	633.3
57.5°	437.7	457.1	521.0	581.0	606.2
60°	393.2	418.4	490.0	552.0	579.1
62.5°	350.6	377.7	457.1	522.9	552.0
65°	313.8	340.9	422.2	492.0	522.9
67.5°	265.3	302.1	393.2	459.0	490.0
70°	216.9	267.3	356.4	424.2	453.2
72.5°	180.1	228.5	319.6	387.4	414.5
75°	137.5	191.7	280.8	338.9	356.4
77.5°	102.7	158.8	240.2	269.2	271.2
80°	75.5	122.0	182.1	191.7	199.5
82.5°	52.3	85.2	118.1	129.8	133.6
85°	32.9	50.4	67.8	73.6	73.6
87.5°	17.4	19.4	23.2	23.2	23.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)