

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: P294859

Luminaire Tested: **22CZ2-44HE-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: P294859
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-L930-CD1-U
Description: 2'X2' 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: 2965.5 lumens
Efficiency: N/A
Efficacy: 84.7 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

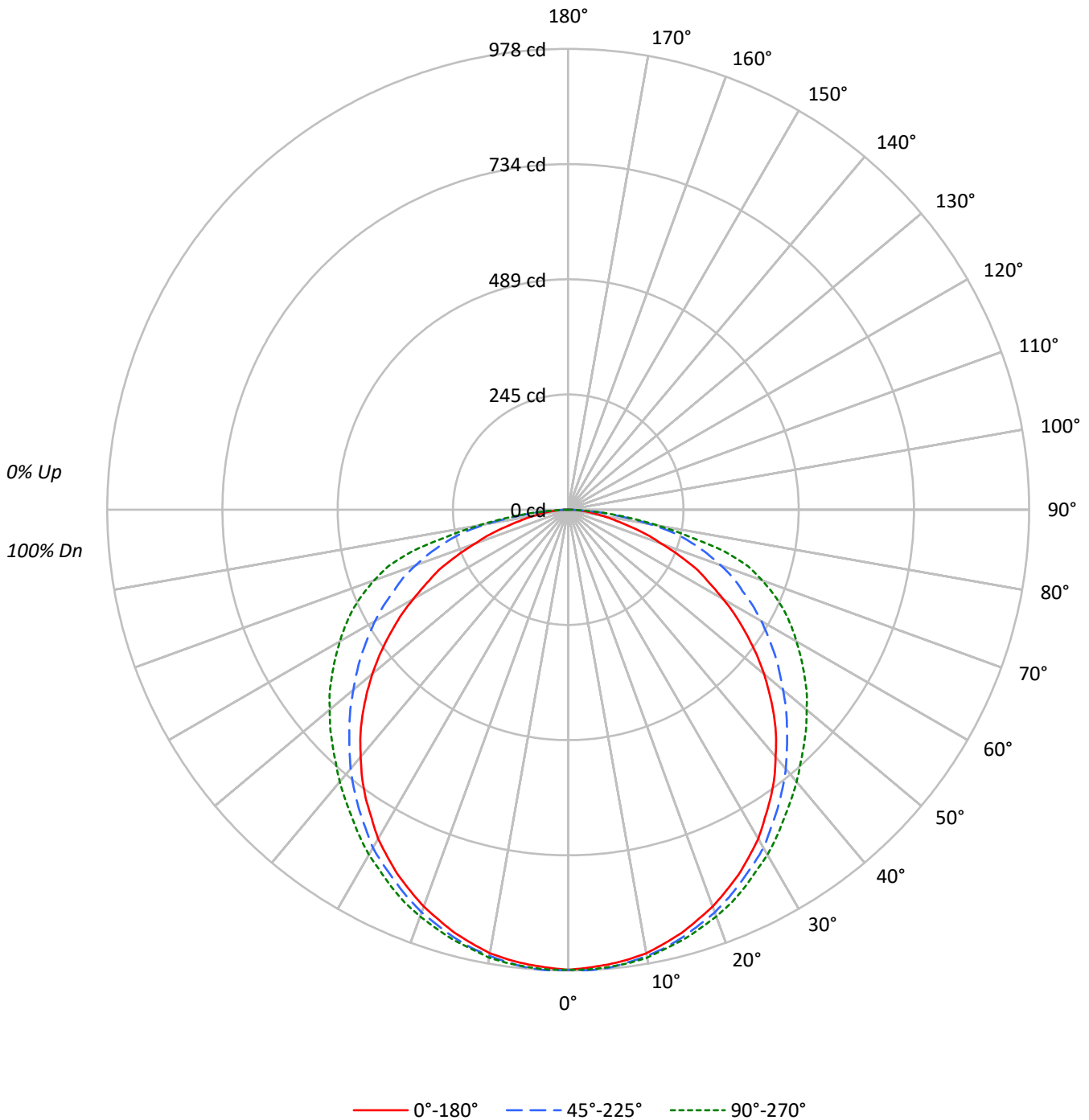
Input Watts (W): 35
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2628	2628	2628
5°	2618	2638	2633
10°	2612	2627	2638
15°	2590	2616	2632
20°	2566	2604	2630
25°	2538	2583	2627
30°	2505	2575	2628
35°	2458	2544	2624
40°	2405	2524	2648
45°	2349	2499	2691
50°	2271	2491	2765
55°	2168	2510	2870
60°	2044	2547	3010
65°	1930	2597	3216
70°	1648	2708	3444
75°	1381	2821	3579
80°	1131	2724	2986
85°	982	2022	2195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.6	3.1
10°-20°	264.7	8.9
20°-30°	401.2	13.5
30°-40°	484.5	16.3
40°-50°	509.1	17.2
50°-60°	479.0	16.2
60°-70°	399.4	13.5
70°-80°	264.6	8.9
80°-90°	70.5	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°	758.5	25.6
0°-40°	1243.0	41.9
0°-60°	2231.0	75.2
0°-90°	2965.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2965.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	976	976	976	976	976	
5°	969	971	976	976	975	92
15°	930	934	939	943	945	262
25°	855	860	870	881	885	394
35°	748	756	774	791	799	468
45°	617	627	657	690	707	475
55°	462	483	535	589	612	413
65°	303	329	408	475	505	295
75°	133	185	271	327	344	144
85°	32	49	66	71	71	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	976.5	976.5	976.5	976.5	976.5
2.5°	972.8	974.6	978.4	978.4	976.5
5°	969.0	970.9	976.5	976.5	974.6
7.5°	963.4	965.3	969.0	972.8	970.9
10°	955.9	957.8	961.5	965.3	965.3
12.5°	942.8	944.7	952.2	954.1	954.1
15°	929.7	933.5	939.1	942.8	944.7
17.5°	912.9	916.6	924.1	931.6	931.6
20°	896.1	899.8	909.2	916.6	918.5
22.5°	875.5	881.1	890.5	899.8	903.6
25°	854.9	860.5	869.9	881.1	884.8
27.5°	830.6	836.2	849.3	862.4	864.3
30°	806.3	811.9	828.7	839.9	845.6
32.5°	776.3	783.8	800.7	817.5	823.1
35°	748.3	755.8	774.5	791.3	798.8
37.5°	718.4	725.8	746.4	767.0	776.3
40°	684.7	694.0	718.4	740.8	753.9
42.5°	652.9	662.2	686.6	716.5	729.6
45°	617.3	626.7	656.6	690.3	707.1
47.5°	579.9	591.1	626.7	667.8	684.7
50°	542.5	555.6	594.9	641.7	660.4
52.5°	503.2	520.1	565.0	615.5	637.9
55°	462.1	482.6	535.0	589.3	611.7
57.5°	422.8	441.5	503.2	561.2	585.5
60°	379.8	404.1	473.3	533.2	559.3
62.5°	338.6	364.8	441.5	505.1	533.2
65°	303.1	329.2	407.8	475.2	505.1
67.5°	256.3	291.8	379.8	443.4	473.3
70°	209.5	258.2	344.2	409.7	437.7
72.5°	174.0	220.7	308.7	374.1	400.3
75°	132.8	185.2	271.3	327.4	344.2
77.5°	99.1	153.4	232.0	260.0	261.9
80°	73.0	117.9	175.8	185.2	192.7
82.5°	50.5	82.3	114.1	125.3	129.1
85°	31.8	48.6	65.5	71.1	71.1
87.5°	16.8	18.7	22.4	22.4	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)