

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: P294863

Luminaire Tested: **22CZ2-44-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: P294863
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: 22CZ2-44-HRP-UNV-L930-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (98) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2938.8 lumens
Efficiency: N/A
Efficacy: 68.8 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

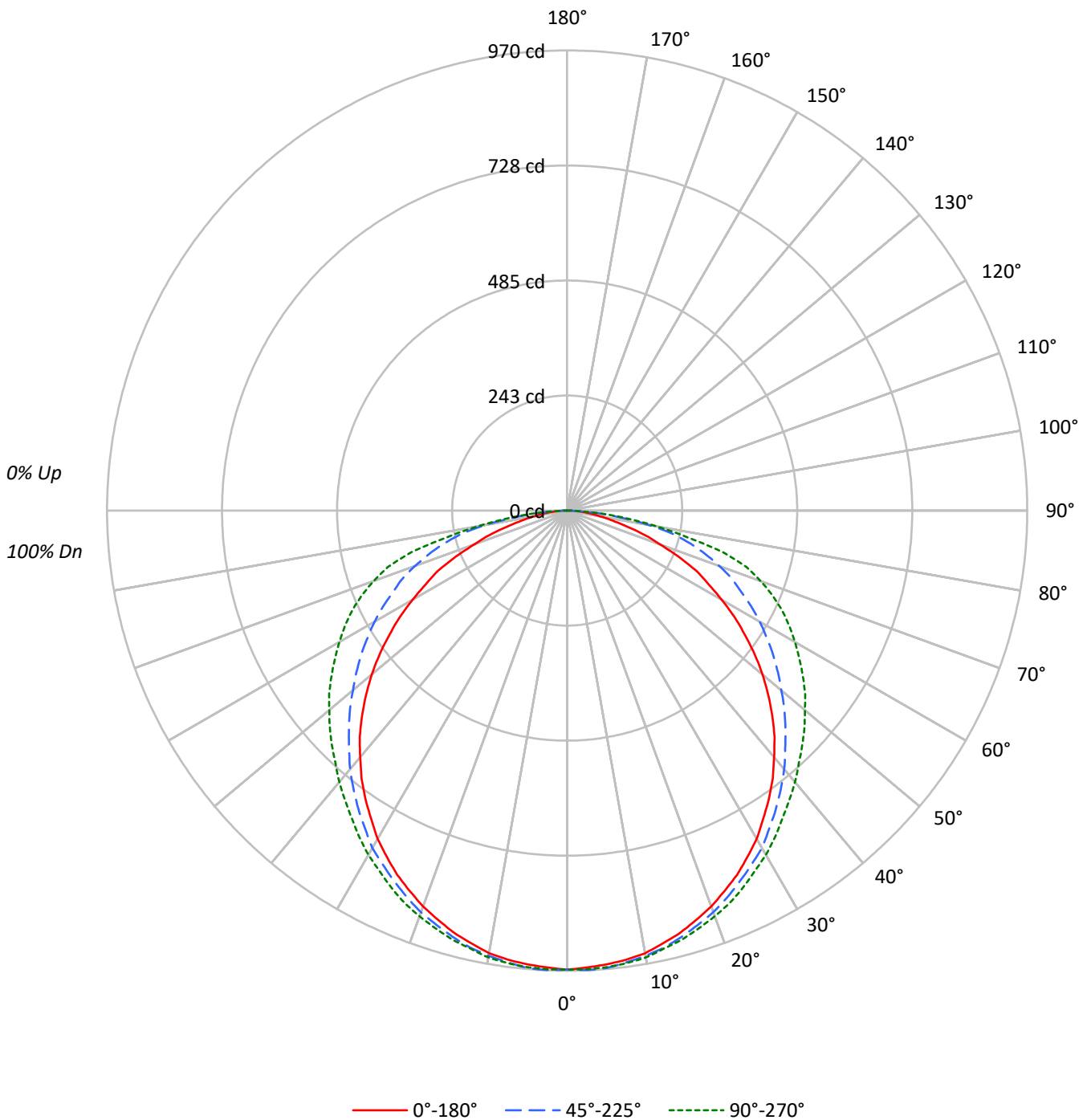
Input Watts (W): 42.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2604	2604	2604
5°	2594	2614	2609
10°	2588	2604	2614
15°	2567	2593	2608
20°	2543	2580	2607
25°	2515	2559	2604
30°	2483	2552	2604
35°	2436	2521	2600
40°	2383	2501	2624
45°	2328	2476	2667
50°	2251	2468	2740
55°	2148	2487	2844
60°	2025	2524	2983
65°	1912	2573	3187
70°	1633	2684	3413
75°	1368	2795	3546
80°	1120	2701	2958
85°	973	2004	2174



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.7	3.1
10°-20°	262.4	8.9
20°-30°	397.6	13.5
30°-40°	480.1	16.3
40°-50°	504.5	17.2
50°-60°	474.7	16.2
60°-70°	395.8	13.5
70°-80°	262.2	8.9
80°-90°	69.9	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°	751.7	25.6
0°-40°	1231.8	41.9
0°-60°	2210.9	75.2
0°-90°	2938.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2938.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	968	968	968	968	968	
5°	960	962	968	968	966	91
15°	921	925	931	934	936	260
25°	847	853	862	873	877	390
35°	742	749	768	784	792	464
45°	612	621	651	684	701	471
55°	458	478	530	584	606	410
65°	300	326	404	471	500	292
75°	132	184	269	324	341	143
85°	32	48	65	70	70	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	967.7	967.7	967.7	967.7	967.7
2.5°	964.0	965.9	969.6	969.6	967.7
5°	960.3	962.1	967.7	967.7	965.9
7.5°	954.7	956.6	960.3	964.0	962.1
10°	947.3	949.2	952.9	956.6	956.6
12.5°	934.3	936.2	943.6	945.5	945.5
15°	921.4	925.1	930.6	934.3	936.2
17.5°	904.7	908.4	915.8	923.2	923.2
20°	888.0	891.7	901.0	908.4	910.2
22.5°	867.6	873.2	882.4	891.7	895.4
25°	847.2	852.8	862.0	873.2	876.9
27.5°	823.1	828.7	841.6	854.6	856.5
30°	799.0	804.6	821.3	832.4	837.9
32.5°	769.3	776.8	793.4	810.1	815.7
35°	741.5	749.0	767.5	784.2	791.6
37.5°	711.9	719.3	739.7	760.1	769.3
40°	678.5	687.8	711.9	734.1	747.1
42.5°	647.0	656.3	680.4	710.0	723.0
45°	611.8	621.0	650.7	684.1	700.8
47.5°	574.7	585.8	621.0	661.8	678.5
50°	537.6	550.6	589.5	635.9	654.4
52.5°	498.7	515.4	559.9	609.9	632.2
55°	457.9	478.3	530.2	584.0	606.2
57.5°	419.0	437.5	498.7	556.2	580.3
60°	376.3	400.4	469.0	528.3	554.3
62.5°	335.5	361.5	437.5	500.5	528.3
65°	300.3	326.3	404.1	470.9	500.5
67.5°	254.0	289.2	376.3	439.4	469.0
70°	207.6	255.8	341.1	406.0	433.8
72.5°	172.4	218.8	305.9	370.8	396.7
75°	131.6	183.5	268.8	324.4	341.1
77.5°	98.3	152.0	229.9	257.7	259.5
80°	72.3	116.8	174.3	183.5	190.9
82.5°	50.1	81.6	113.1	124.2	127.9
85°	31.5	48.2	64.9	70.4	70.4
87.5°	16.7	18.5	22.2	22.2	22.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)