

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: P294844

Luminaire Tested: **22CZ2-32-HRP-UNV-L935-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: P294844
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: 22CZ2-32-HRP-UNV-L935-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (98) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2232.9 lumens
Efficiency: N/A
Efficacy: 83.6 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

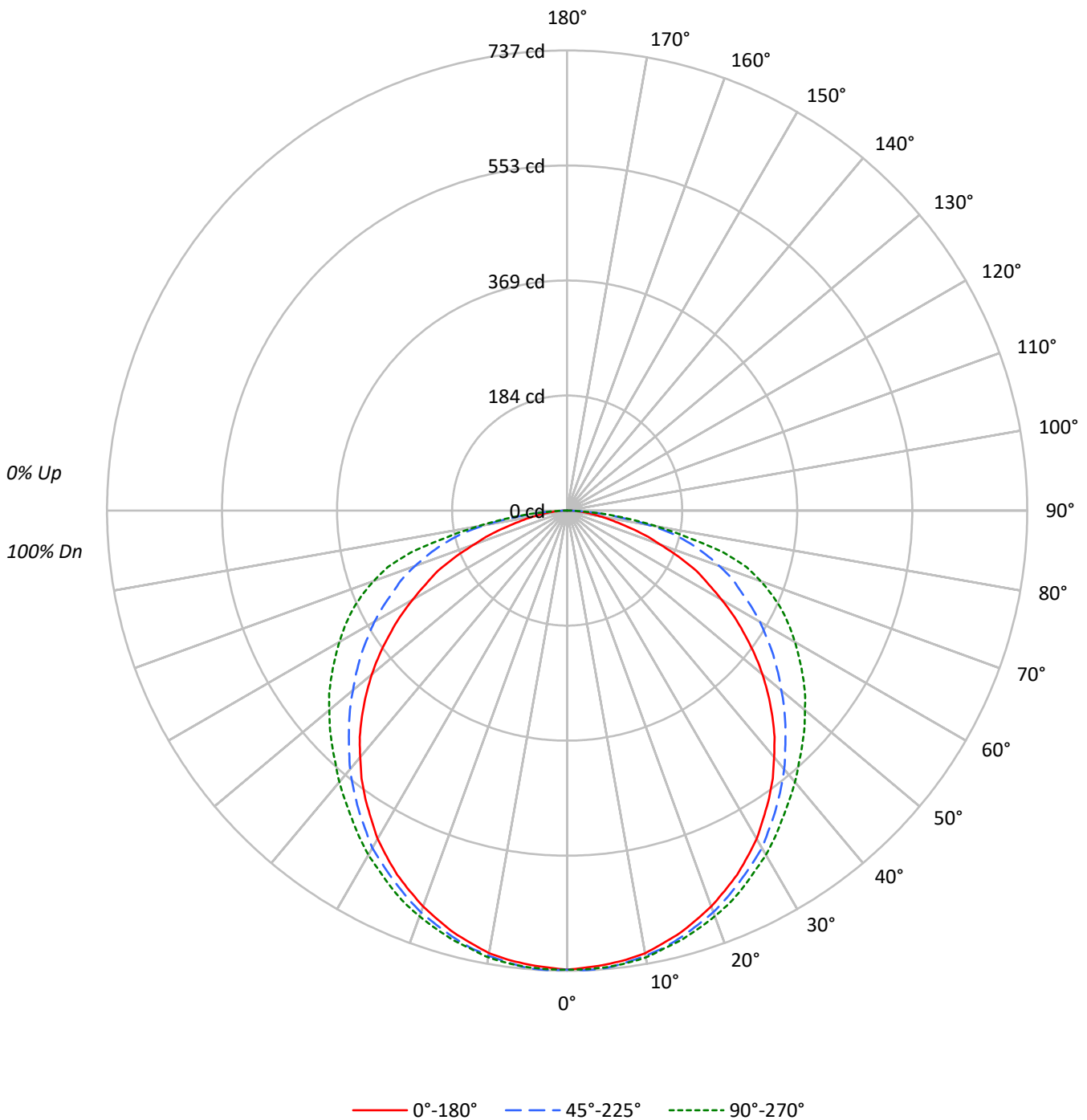
Input Watts (W): 26.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1979	1979	1979
5°	1971	1986	1982
10°	1967	1978	1986
15°	1950	1970	1982
20°	1932	1960	1981
25°	1911	1945	1978
30°	1886	1939	1978
35°	1851	1916	1976
40°	1811	1900	1994
45°	1769	1881	2026
50°	1710	1875	2081
55°	1632	1890	2161
60°	1539	1918	2267
65°	1453	1955	2422
70°	1242	2039	2593
75°	1040	2123	2695
80°	851	2052	2249
85°	738	1522	1652



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.7	3.1
10°-20°	199.3	8.9
20°-30°	302.1	13.5
30°-40°	364.8	16.3
40°-50°	383.3	17.2
50°-60°	360.6	16.2
60°-70°	300.7	13.5
70°-80°	199.2	8.9
80°-90°	53.1	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°	571.1	25.6
0°-40°	935.9	41.9
0°-60°	1679.9	75.2
0°-90°	2232.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2232.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	735	735	735	735	735	
5°	730	731	735	735	734	69
15°	700	703	707	710	711	197
25°	644	648	655	663	666	296
35°	563	569	583	596	602	352
45°	465	472	494	520	532	358
55°	348	363	403	444	461	311
65°	228	248	307	358	380	222
75°	100	139	204	246	259	109
85°	24	37	49	54	54	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	735.3	735.3	735.3	735.3	735.3
2.5°	732.5	733.9	736.7	736.7	735.3
5°	729.6	731.1	735.3	735.3	733.9
7.5°	725.4	726.8	729.6	732.5	731.1
10°	719.8	721.2	724.0	726.8	726.8
12.5°	709.9	711.3	717.0	718.4	718.4
15°	700.1	702.9	707.1	709.9	711.3
17.5°	687.4	690.2	695.8	701.5	701.5
20°	674.7	677.5	684.6	690.2	691.6
22.5°	659.2	663.4	670.5	677.5	680.3
25°	643.7	647.9	655.0	663.4	666.3
27.5°	625.4	629.6	639.5	649.4	650.8
30°	607.1	611.3	624.0	632.5	636.7
32.5°	584.6	590.2	602.9	615.5	619.8
35°	563.4	569.1	583.2	595.8	601.5
37.5°	540.9	546.5	562.0	577.5	584.6
40°	515.5	522.6	540.9	557.8	567.7
42.5°	491.6	498.6	516.9	539.5	549.3
45°	464.8	471.9	494.4	519.8	532.4
47.5°	436.7	445.1	471.9	502.9	515.5
50°	408.5	418.3	447.9	483.1	497.2
52.5°	378.9	391.6	425.4	463.4	480.3
55°	347.9	363.4	402.9	443.7	460.6
57.5°	318.3	332.4	378.9	422.6	440.9
60°	285.9	304.3	356.4	401.4	421.2
62.5°	255.0	274.7	332.4	380.3	401.4
65°	228.2	247.9	307.1	357.8	380.3
67.5°	193.0	219.7	285.9	333.8	356.4
70°	157.8	194.4	259.2	308.5	329.6
72.5°	131.0	166.2	232.4	281.7	301.4
75°	100.0	139.4	204.2	246.5	259.2
77.5°	74.7	115.5	174.7	195.8	197.2
80°	54.9	88.7	132.4	139.4	145.1
82.5°	38.0	62.0	85.9	94.4	97.2
85°	23.9	36.6	49.3	53.5	53.5
87.5°	12.7	14.1	16.9	16.9	16.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)