

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: P294808

Luminaire Tested: **14CZ2-39-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: P294808
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: 14CZ2-39-HRP-UNV-L935-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (112) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

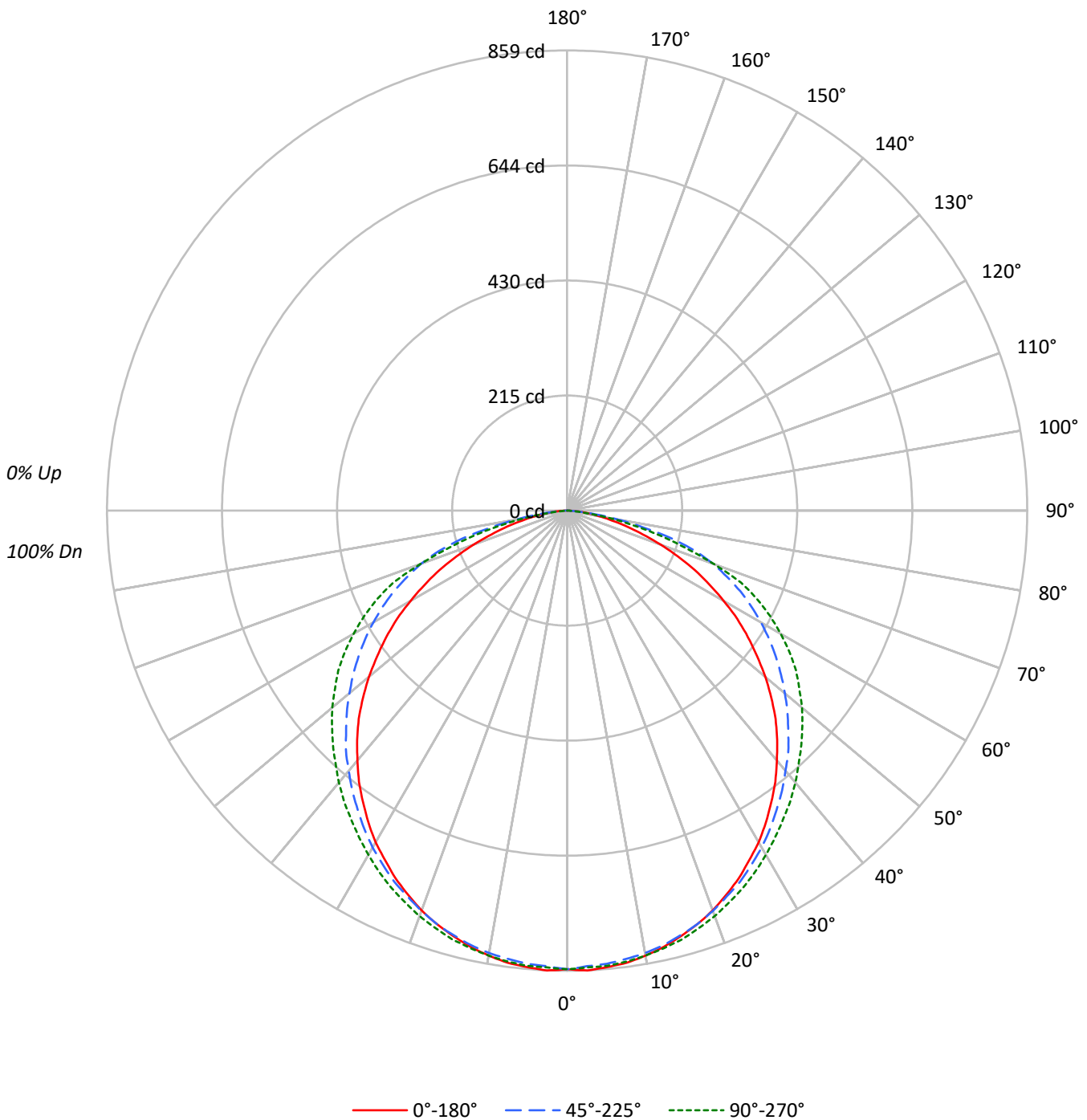
Lumens per Lamp: N/A
Luminaire Lumens: 2521.2 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 32.3
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°	2304	2304	2304
5°	2311	2294	2304
10°	2305	2292	2305
15°	2290	2286	2308
20°	2275	2277	2307
25°	2250	2269	2307
30°	2222	2257	2306
35°	2183	2240	2310
40°	2139	2228	2328
45°	2094	2221	2353
50°	2021	2220	2396
55°	1934	2232	2448
60°	1817	2249	2479
65°	1676	2272	2493
70°	1459	2277	2295
75°	1203	2118	1855
80°	945	1523	1241
85°	735	587	293



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.1	3.2
10°-20°	232.6	9.2
20°-30°	353.2	14.0
30°-40°	428.0	17.0
40°-50°	451.0	17.9
50°-60°	421.0	16.7
60°-70°	336.5	13.3
70°-80°	185.1	7.3
80°-90°	32.7	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°	666.9	26.5
0°-40°	1094.9	43.4
0°-60°	1966.9	78.0
0°-90°	2521.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2521.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	856	856	856	856	856	
5°	855	853	849	855	853	81
15°	822	822	820	828	828	232
25°	758	760	764	775	777	349
35°	664	671	682	699	703	416
45°	550	560	584	610	618	423
55°	412	433	476	509	522	368
65°	263	296	357	386	392	259
75°	116	166	204	183	178	125
85°	24	30	19	12	10	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	856.2	856.2	856.2	856.2	856.2
2.5°	859.4	857.0	851.4	856.2	853.8
5°	855.4	853.0	849.1	854.6	853.0
7.5°	851.4	848.3	844.3	850.7	849.1
10°	843.5	841.1	838.8	844.3	843.5
12.5°	834.0	833.2	830.8	837.2	836.4
15°	822.1	822.1	820.5	828.5	828.5
17.5°	809.4	808.6	809.4	818.2	817.4
20°	794.4	794.4	795.2	805.5	805.5
22.5°	776.1	776.9	779.3	792.0	791.2
25°	757.9	759.5	764.2	775.3	776.9
27.5°	735.7	739.7	745.2	758.7	760.3
30°	715.1	717.5	726.2	738.9	742.0
32.5°	690.5	695.3	704.8	719.1	723.0
35°	664.4	670.7	681.8	699.2	703.2
37.5°	638.2	643.7	658.8	677.0	684.2
40°	608.9	618.4	634.2	654.8	662.8
42.5°	580.3	589.8	611.2	632.6	639.8
45°	550.2	560.5	583.5	609.7	618.4
47.5°	516.9	528.8	558.1	585.9	595.4
50°	482.8	497.9	530.4	561.3	572.4
52.5°	447.1	466.2	503.4	535.9	546.2
55°	412.2	432.9	475.7	509.0	521.7
57.5°	376.6	398.8	447.1	485.2	492.3
60°	337.7	364.7	417.8	451.1	460.6
62.5°	299.7	330.6	387.7	419.4	427.3
65°	263.2	296.5	356.8	386.1	391.6
67.5°	223.6	263.2	322.7	349.6	351.2
70°	185.5	231.5	289.4	302.1	291.7
72.5°	148.3	197.4	250.5	240.2	231.5
75°	115.7	165.7	203.7	183.1	178.4
77.5°	85.6	135.6	145.9	134.8	126.1
80°	61.0	107.0	98.3	84.0	80.1
82.5°	42.0	67.4	53.9	42.0	36.5
85°	23.8	30.1	19.0	11.9	9.5
87.5°	10.3	7.1	4.0	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)