

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: P294807

Luminaire Tested: **14CZ2-39-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: P294807
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-L930-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (112) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

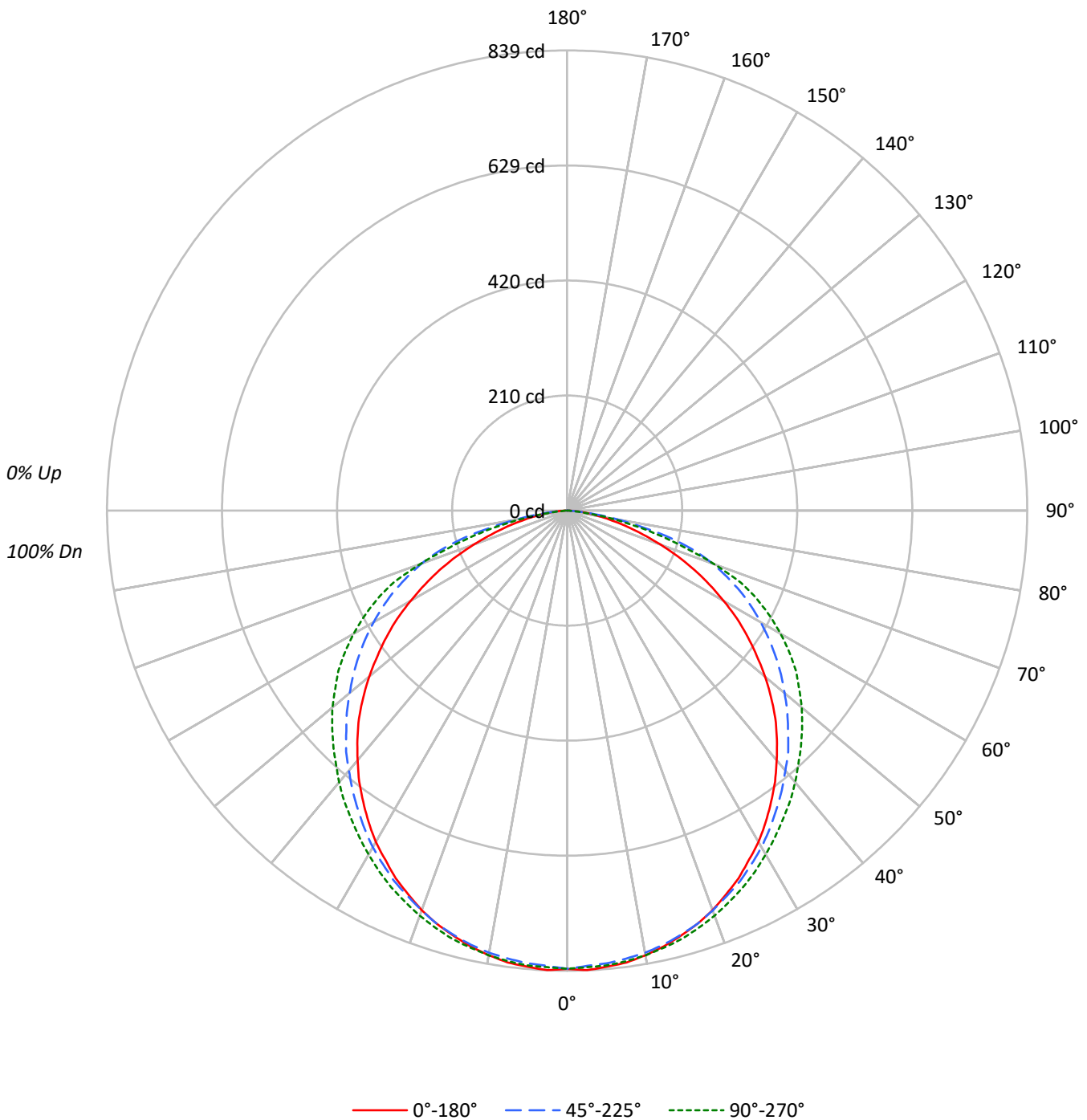
Lumens per Lamp: N/A
Luminaire Lumens: 2460.3 lumens
Efficiency: N/A
Efficacy: 76.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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	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					100			
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84					84			
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37					37			
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33					33			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26					26			
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2248	2248	2248
5°	2255	2238	2249
10°	2249	2237	2249
15°	2235	2231	2252
20°	2220	2222	2251
25°	2196	2214	2251
30°	2168	2202	2250
35°	2130	2186	2254
40°	2087	2174	2272
45°	2043	2167	2296
50°	1973	2167	2339
55°	1887	2178	2388
60°	1774	2194	2419
65°	1636	2216	2434
70°	1424	2222	2240
75°	1175	2067	1810
80°	924	1486	1210
85°	716	574	287



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.1	3.2
10°-20°	227.0	9.2
20°-30°	344.7	14.0
30°-40°	417.7	17.0
40°-50°	440.1	17.9
50°-60°	410.9	16.7
60°-70°	328.4	13.3
70°-80°	180.7	7.3
80°-90°	31.9	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°	650.8	26.5
0°-40°	1068.4	43.4
0°-60°	1919.4	78.0
0°-90°	2460.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2460.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	836	836	836	836	836	
5°	835	832	829	834	832	79
15°	802	802	801	808	808	226
25°	740	741	746	757	758	340
35°	648	654	665	682	686	406
45°	537	547	569	595	603	413
55°	402	422	464	497	509	359
65°	257	289	348	377	382	253
75°	113	162	199	179	174	122
85°	23	29	19	12	9	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	835.5	835.5	835.5	835.5	835.5
2.5°	838.6	836.3	830.9	835.5	833.2
5°	834.8	832.4	828.6	834.0	832.4
7.5°	830.9	827.8	823.9	830.1	828.6
10°	823.2	820.8	818.5	823.9	823.2
12.5°	813.9	813.1	810.8	817.0	816.2
15°	802.3	802.3	800.7	808.5	808.5
17.5°	789.9	789.1	789.9	798.4	797.6
20°	775.2	775.2	776.0	786.0	786.0
22.5°	757.4	758.2	760.5	772.9	772.1
25°	739.6	741.2	745.8	756.6	758.2
27.5°	717.9	721.8	727.2	740.4	741.9
30°	697.8	700.2	708.7	721.0	724.1
32.5°	673.8	678.5	687.8	701.7	705.6
35°	648.3	654.5	665.3	682.4	686.2
37.5°	622.8	628.2	642.9	660.7	667.7
40°	594.2	603.4	618.9	639.0	646.8
42.5°	566.3	575.6	596.5	617.4	624.3
45°	536.9	547.0	569.4	594.9	603.4
47.5°	504.4	516.0	544.6	571.7	581.0
50°	471.2	485.9	517.6	547.7	558.6
52.5°	436.3	454.9	491.3	523.0	533.0
55°	402.3	422.4	464.2	496.7	509.1
57.5°	367.5	389.1	436.3	473.5	480.4
60°	329.6	355.9	407.7	440.2	449.5
62.5°	292.4	322.6	378.3	409.3	417.0
65°	256.9	289.3	348.1	376.8	382.2
67.5°	218.2	256.9	314.9	341.2	342.7
70°	181.0	225.9	282.4	294.8	284.7
72.5°	144.7	192.6	244.5	234.4	225.9
75°	113.0	161.7	198.8	178.7	174.1
77.5°	83.6	132.3	142.4	131.5	123.0
80°	59.6	104.4	95.9	82.0	78.1
82.5°	41.0	65.8	52.6	41.0	35.6
85°	23.2	29.4	18.6	11.6	9.3
87.5°	10.1	7.0	3.9	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)