

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: P294804

Luminaire Tested: **14CZ2-39HE-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: P294804
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: 14CZ2-39HE-HRP-UNV-L935-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (196) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2543.1 lumens
Efficiency: N/A
Efficacy: 86.8 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

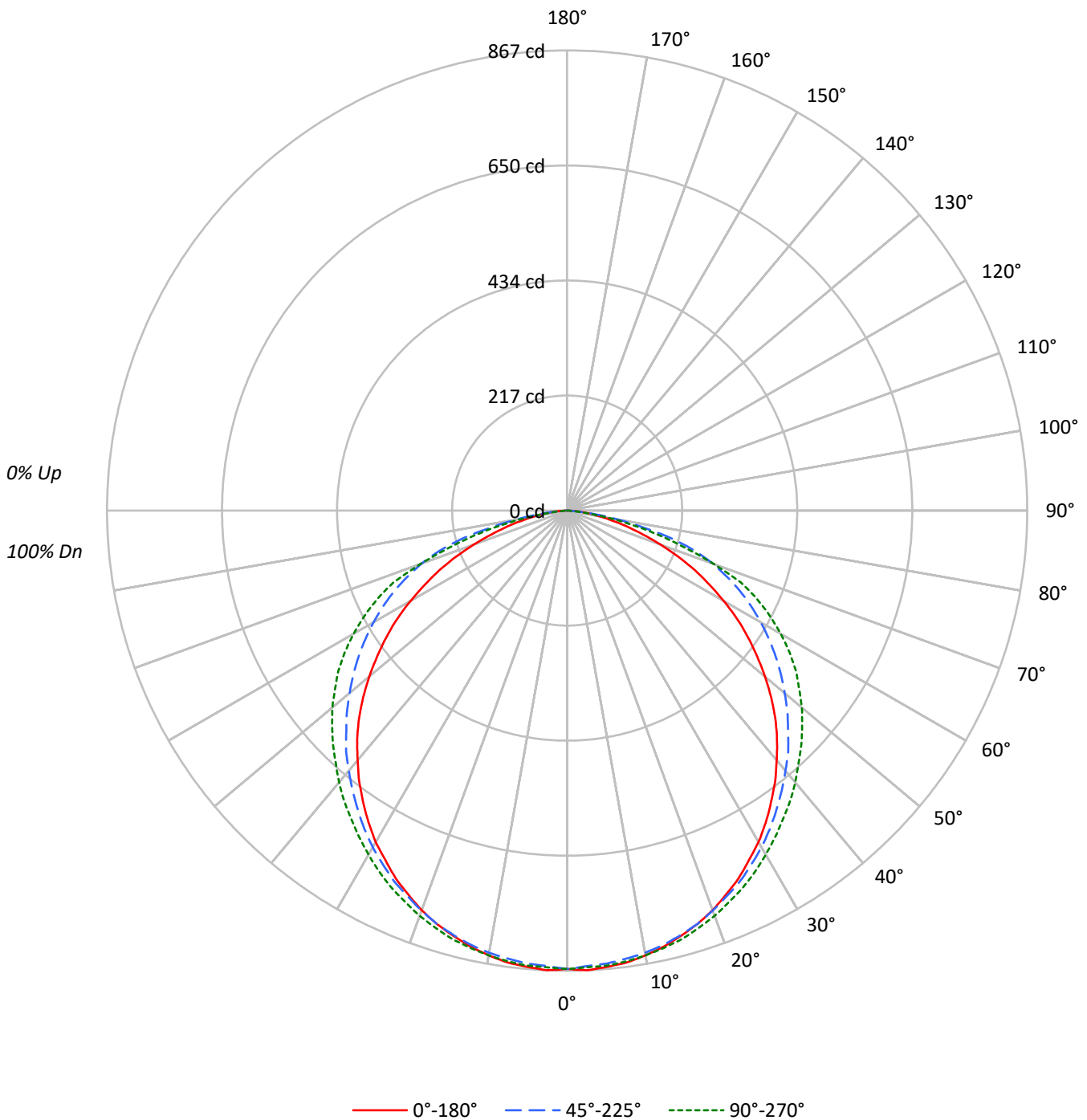
Input Watts (W): 29.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2324	2324	2324
5°	2331	2314	2324
10°	2325	2312	2325
15°	2310	2306	2328
20°	2295	2297	2327
25°	2270	2289	2327
30°	2241	2276	2326
35°	2201	2259	2330
40°	2158	2247	2348
45°	2112	2240	2374
50°	2039	2240	2417
55°	1951	2251	2469
60°	1834	2268	2500
65°	1691	2292	2515
70°	1472	2297	2316
75°	1214	2137	1870
80°	955	1537	1252
85°	741	593	296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.8	3.2
10°-20°	234.6	9.2
20°-30°	356.3	14.0
30°-40°	431.7	17.0
40°-50°	454.9	17.9
50°-60°	424.7	16.7
60°-70°	339.4	13.3
70°-80°	186.7	7.3
80°-90°	33.0	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°	672.7	26.5
0°-40°	1104.4	43.4
0°-60°	1984.0	78.0
0°-90°	2543.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2543.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	864	864	864	864	864	
5°	863	860	856	862	860	82
15°	829	829	828	836	836	234
25°	764	766	771	782	784	352
35°	670	676	688	705	709	419
45°	555	565	589	615	624	427
55°	416	437	480	513	526	371
65°	266	299	360	389	395	261
75°	117	167	206	185	180	126
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°	863.7	863.7	863.7	863.7	863.7
2.5°	866.9	864.5	858.9	863.7	861.3
5°	862.9	860.5	856.5	862.1	860.5
7.5°	858.9	855.7	851.7	858.1	856.5
10°	850.9	848.5	846.1	851.7	850.9
12.5°	841.3	840.5	838.1	844.5	843.7
15°	829.3	829.3	827.7	835.7	835.7
17.5°	816.5	815.7	816.5	825.3	824.5
20°	801.3	801.3	802.1	812.5	812.5
22.5°	782.9	783.7	786.1	798.9	798.1
25°	764.5	766.1	770.9	782.1	783.7
27.5°	742.1	746.1	751.7	765.3	766.9
30°	721.3	723.7	732.5	745.3	748.5
32.5°	696.5	701.3	710.9	725.3	729.3
35°	670.1	676.5	687.7	705.3	709.3
37.5°	643.7	649.3	664.5	682.9	690.1
40°	614.2	623.8	639.7	660.5	668.5
42.5°	585.4	595.0	616.6	638.1	645.3
45°	555.0	565.4	588.6	615.0	623.8
47.5°	521.4	533.4	563.0	591.0	600.6
50°	487.0	502.2	535.0	566.2	577.4
52.5°	451.0	470.2	507.8	540.6	551.0
55°	415.8	436.6	479.8	513.4	526.2
57.5°	379.8	402.2	451.0	489.4	496.6
60°	340.7	367.9	421.4	455.0	464.6
62.5°	302.3	333.5	391.0	423.0	431.0
65°	265.5	299.1	359.9	389.4	395.0
67.5°	225.5	265.5	325.5	352.7	354.3
70°	187.1	233.5	291.9	304.7	294.3
72.5°	149.5	199.1	252.7	242.3	233.5
75°	116.8	167.1	205.5	184.7	179.9
77.5°	86.4	136.7	147.1	135.9	127.1
80°	61.6	108.0	99.2	84.8	80.8
82.5°	42.4	68.0	54.4	42.4	36.8
85°	24.0	30.4	19.2	12.0	9.6
87.5°	10.4	7.2	4.0	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)