

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: P294848

Luminaire Tested: **22CZ2-34HE-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: P294848
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: 22CZ2-34HE-HRP-UNV-L935-CD1-U
Description: 2'X2' 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: 2304.8 lumens
Efficiency: N/A
Efficacy: 89.3 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

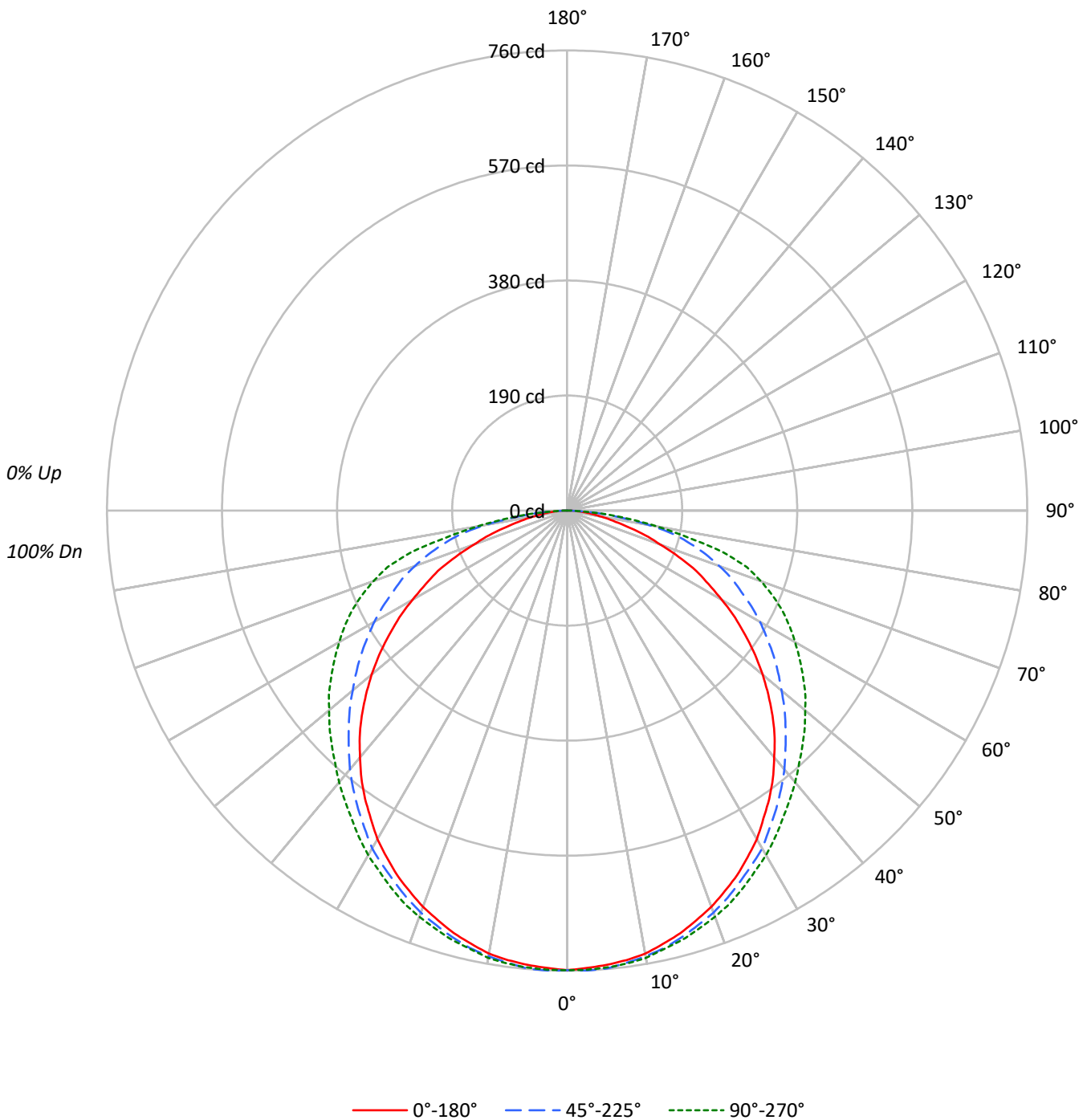
Input Watts (W): 25.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20				20			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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82	82	
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68	68	
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56	56	
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48	48	
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41	41	
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36	36	
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31	31	
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28	28	
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25	25	
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23	23	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2042	2042	2042
5°	2034	2050	2046
10°	2030	2042	2050
15°	2013	2033	2045
20°	1994	2023	2044
25°	1973	2007	2042
30°	1947	2001	2042
35°	1911	1977	2039
40°	1869	1961	2058
45°	1826	1942	2092
50°	1765	1936	2148
55°	1685	1951	2230
60°	1588	1979	2340
65°	1500	2018	2500
70°	1281	2105	2677
75°	1073	2192	2781
80°	879	2118	2321
85°	763	1572	1704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.9	3.1
10°-20°	205.8	8.9
20°-30°	311.8	13.5
30°-40°	376.5	16.3
40°-50°	395.7	17.2
50°-60°	372.3	16.2
60°-70°	310.4	13.5
70°-80°	205.7	8.9
80°-90°	54.8	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°	589.5	25.6
0°-40°	966.0	41.9
0°-60°	1733.9	75.2
0°-90°	2304.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2304.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	759	759	759	759	759	
5°	753	755	759	759	758	72
15°	723	726	730	733	734	204
25°	664	669	676	685	688	306
35°	582	587	602	615	621	364
45°	480	487	510	536	550	370
55°	359	375	416	458	475	321
65°	236	256	317	369	393	229
75°	103	144	211	254	268	112
85°	25	38	51	55	55	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	759.0	759.0	759.0	759.0	759.0
2.5°	756.0	757.5	760.4	760.4	759.0
5°	753.1	754.6	759.0	759.0	757.5
7.5°	748.8	750.2	753.1	756.0	754.6
10°	743.0	744.4	747.3	750.2	750.2
12.5°	732.8	734.2	740.1	741.5	741.5
15°	722.6	725.5	729.9	732.8	734.2
17.5°	709.5	712.4	718.2	724.1	724.1
20°	696.4	699.3	706.6	712.4	713.9
22.5°	680.4	684.8	692.1	699.3	702.3
25°	664.4	668.8	676.1	684.8	687.7
27.5°	645.5	649.9	660.1	670.3	671.7
30°	626.6	631.0	644.1	652.8	657.2
32.5°	603.4	609.2	622.3	635.4	639.7
35°	581.6	587.4	601.9	615.0	620.8
37.5°	558.3	564.1	580.1	596.1	603.4
40°	532.1	539.4	558.3	575.8	585.9
42.5°	507.4	514.7	533.6	556.9	567.0
45°	479.8	487.1	510.3	536.5	549.6
47.5°	450.7	459.4	487.1	519.1	532.1
50°	421.6	431.8	462.4	498.7	513.2
52.5°	391.1	404.2	439.1	478.3	495.8
55°	359.1	375.1	415.8	458.0	475.4
57.5°	328.6	343.1	391.1	436.2	455.1
60°	295.1	314.0	367.8	414.4	434.7
62.5°	263.2	283.5	343.1	392.6	414.4
65°	235.5	255.9	317.0	369.3	392.6
67.5°	199.2	226.8	295.1	344.6	367.8
70°	162.8	200.6	267.5	318.4	340.2
72.5°	135.2	171.6	239.9	290.8	311.1
75°	103.2	143.9	210.8	254.4	267.5
77.5°	77.1	119.2	180.3	202.1	203.6
80°	56.7	91.6	136.7	143.9	149.8
82.5°	39.3	64.0	88.7	97.4	100.3
85°	24.7	37.8	50.9	55.2	55.2
87.5°	13.1	14.5	17.4	17.4	17.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)