

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: P390266

Luminaire Tested: **22CZ2-34VHE-HRP-UNV-L935-CD1-U**

Issue Date: 2/28/2020

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: P390266  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-34VHE-HRP-UNV-L935-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2582.2 lumens  
Efficiency: N/A  
Efficacy: 102.9 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

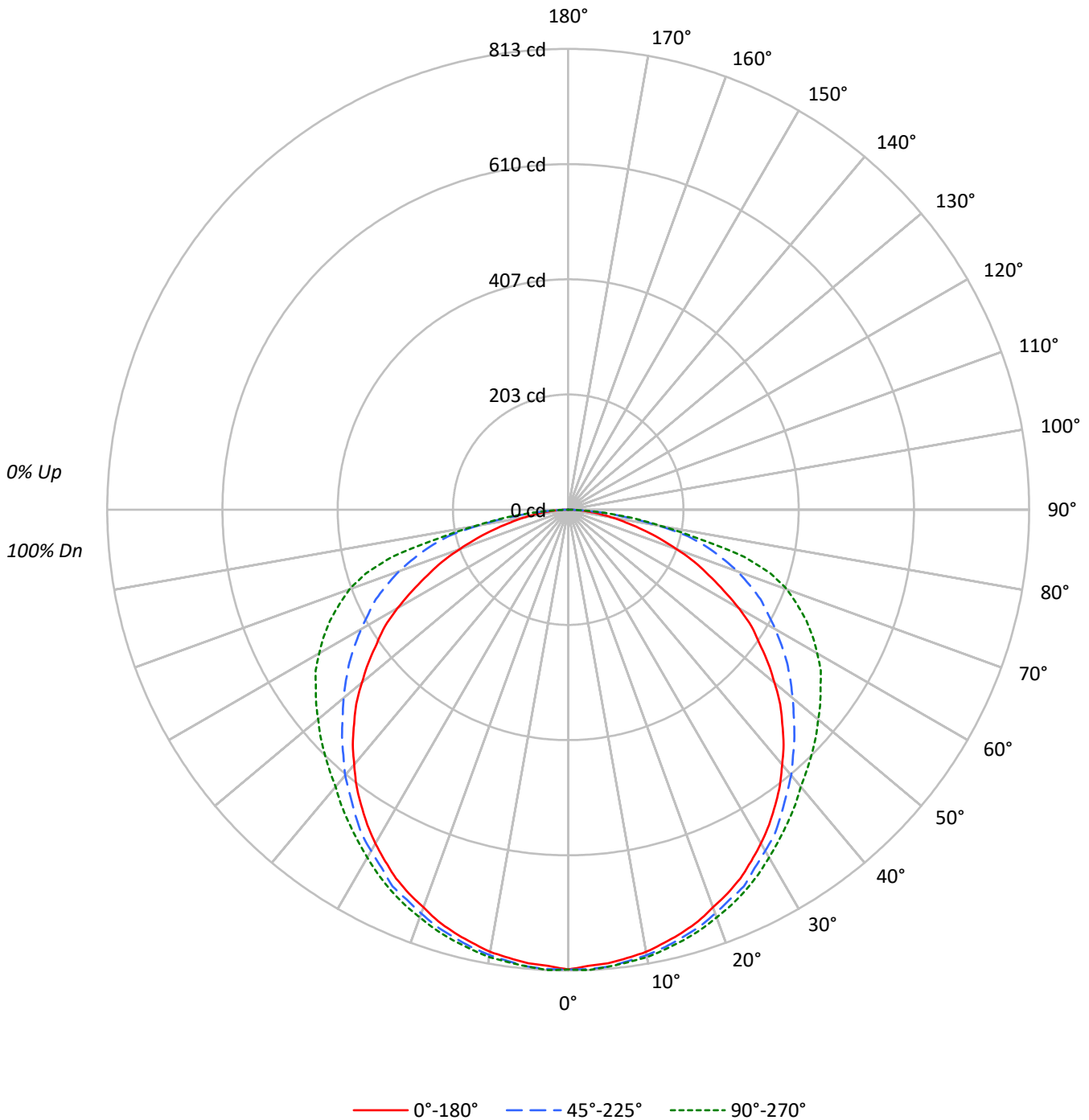
Input Watts (W): 25.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2183	2183	2183
5°	2170	2186	2186
10°	2164	2180	2190
15°	2154	2175	2191
20°	2138	2170	2192
25°	2132	2177	2200
30°	2113	2160	2202
35°	2091	2153	2215
40°	2062	2149	2242
45°	2031	2147	2313
50°	1988	2163	2410
55°	1934	2210	2549
60°	1871	2270	2730
65°	1741	2383	2951
70°	1600	2496	3228
75°	1403	2626	3337
80°	1207	2503	2620
85°	1056	1819	1995



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.7	3.0
10°-20°	220.3	8.5
20°-30°	336.1	13.0
30°-40°	410.4	15.9
40°-50°	438.8	17.0
50°-60°	423.5	16.4
60°-70°	364.6	14.1
70°-80°	246.7	9.6
80°-90°	65.1	2.5
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°	633.1	24.5
0°-40°	1043.5	40.4
0°-60°	1905.8	73.8
0°-90°	2582.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2582.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	811	811	811	811	811	
5°	804	805	809	809	809	76
15°	773	775	781	784	786	218
25°	718	722	733	737	741	330
35°	636	642	655	669	674	398
45°	534	543	564	593	608	412
55°	412	426	471	519	543	369
65°	274	300	374	433	464	272
75°	135	179	253	304	321	145
85°	34	48	59	61	65	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	811.1	811.1	811.1	811.1	811.1
2.5°	805.4	807.3	811.1	811.1	813.0
5°	803.5	805.4	809.2	809.2	809.2
7.5°	797.8	799.7	803.5	805.4	805.4
10°	792.1	794.0	797.8	799.7	801.6
12.5°	782.6	784.5	790.2	794.0	794.0
15°	773.1	775.0	780.7	784.5	786.4
17.5°	761.7	765.5	771.2	775.0	776.9
20°	746.5	750.3	757.9	763.6	765.5
22.5°	733.2	737.0	744.6	750.3	754.1
25°	718.0	721.8	733.2	737.0	740.8
27.5°	699.0	702.8	712.3	719.9	725.6
30°	680.0	683.8	695.2	704.7	708.5
32.5°	659.1	664.8	678.1	685.7	691.4
35°	636.4	642.1	655.3	668.6	674.3
37.5°	613.6	619.3	632.6	649.7	657.2
40°	587.0	594.6	611.7	634.5	638.3
42.5°	562.3	571.8	587.0	613.6	623.1
45°	533.8	543.3	564.2	592.7	607.9
47.5°	507.2	516.7	539.5	573.7	592.7
50°	474.9	488.2	516.7	556.6	575.6
52.5°	444.5	455.9	493.9	537.6	560.4
55°	412.2	425.5	471.1	518.6	543.3
57.5°	383.7	395.1	446.4	499.6	528.1
60°	347.6	362.8	421.7	478.7	507.2
62.5°	309.6	332.4	397.0	455.9	486.3
65°	273.5	300.1	374.2	433.1	463.5
67.5°	241.2	269.7	345.7	408.4	436.9
70°	203.3	239.3	317.2	378.0	410.3
72.5°	169.1	209.0	284.9	345.7	374.2
75°	134.9	178.6	252.6	303.9	321.0
77.5°	104.5	146.3	216.6	231.7	233.6
80°	77.9	115.9	161.5	163.4	169.1
82.5°	53.2	81.7	104.5	114.0	115.9
85°	34.2	47.5	58.9	60.8	64.6
87.5°	15.2	17.1	20.9	19.0	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)