

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: P390344

Luminaire Tested: **22CZ2-39VHE-RDP-UNV-L950-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: P390344  
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: 22CZ2-39VHE-RDP-UNV-L950-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2486.8 lumens  
Efficiency: N/A  
Efficacy: 86.9 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

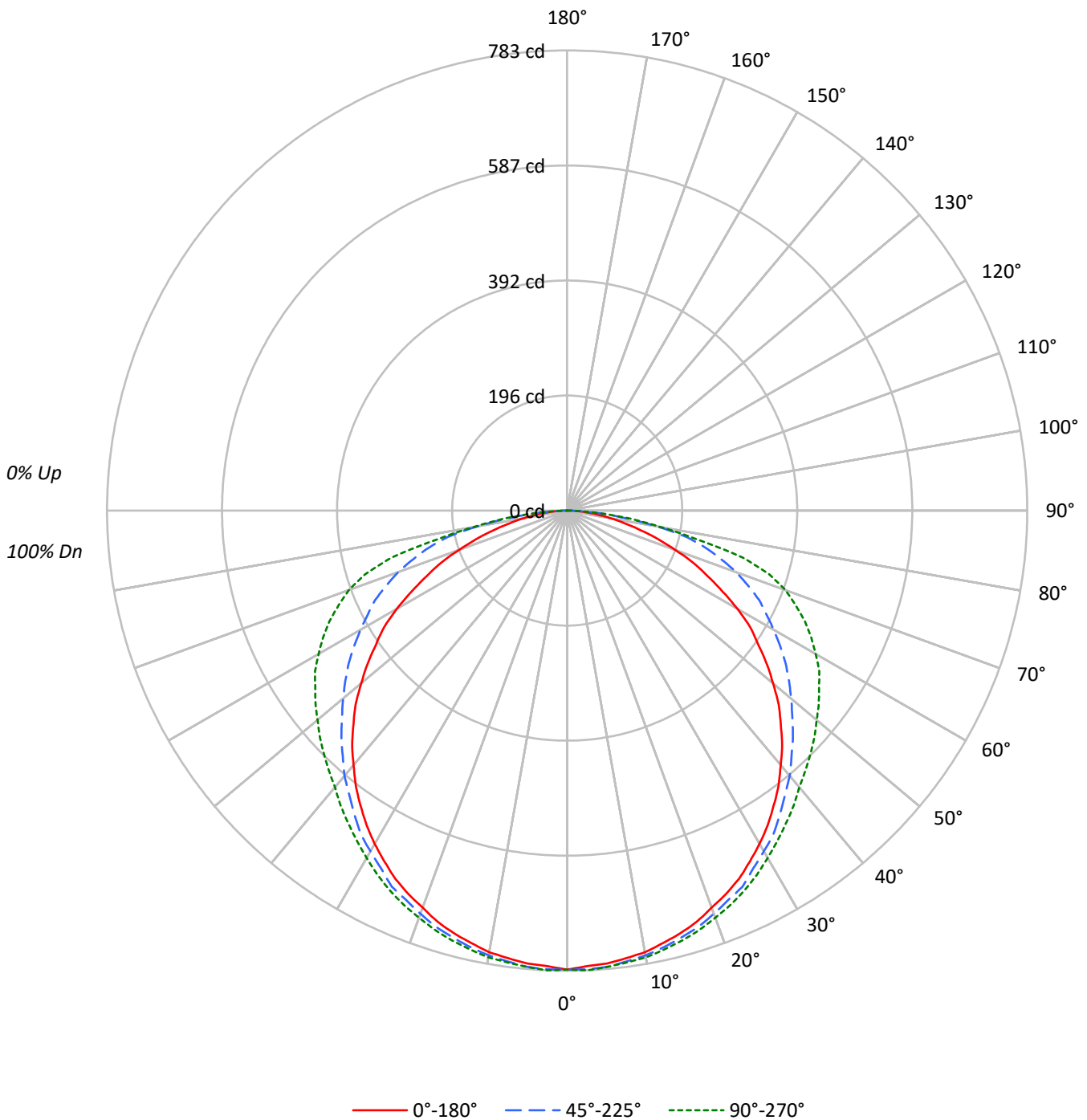
Input Watts (W): 28.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2102	2102	2102
5°	2090	2105	2105
10°	2085	2099	2109
15°	2074	2095	2110
20°	2059	2090	2111
25°	2053	2097	2119
30°	2035	2081	2120
35°	2013	2073	2133
40°	1986	2069	2159
45°	1956	2068	2228
50°	1914	2083	2321
55°	1863	2129	2455
60°	1802	2186	2629
65°	1677	2295	2842
70°	1540	2404	3109
75°	1351	2530	3215
80°	1162	2410	2523
85°	1016	1751	1920



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.9	3.0
10°-20°	212.2	8.5
20°-30°	323.7	13.0
30°-40°	395.2	15.9
40°-50°	422.6	17.0
50°-60°	407.9	16.4
60°-70°	351.1	14.1
70°-80°	237.6	9.6
80°-90°	62.7	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°	609.7	24.5
0°-40°	1005.0	40.4
0°-60°	1835.4	73.8
0°-90°	2486.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2486.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	781	781	781	781	781	
5°	774	776	779	779	779	73
15°	745	746	752	756	757	210
25°	692	695	706	710	714	318
35°	613	618	631	644	649	383
45°	514	523	543	571	585	397
55°	397	410	454	499	523	356
65°	263	289	360	417	446	262
75°	130	172	243	293	309	139
85°	33	46	57	58	62	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	781.1	781.1	781.1	781.1	781.1
2.5°	775.7	777.5	781.1	781.1	783.0
5°	773.8	775.7	779.3	779.3	779.3
7.5°	768.3	770.2	773.8	775.7	775.7
10°	762.9	764.7	768.3	770.2	772.0
12.5°	753.7	755.5	761.0	764.7	764.7
15°	744.6	746.4	751.9	755.5	757.4
17.5°	733.6	737.2	742.7	746.4	748.2
20°	718.9	722.6	729.9	735.4	737.2
22.5°	706.1	709.8	717.1	722.6	726.3
25°	691.5	695.2	706.1	709.8	713.5
27.5°	673.2	676.9	686.0	693.3	698.8
30°	654.9	658.6	669.6	678.7	682.4
32.5°	634.8	640.3	653.1	660.4	665.9
35°	612.8	618.3	631.1	643.9	649.4
37.5°	590.9	596.4	609.2	625.6	633.0
40°	565.3	572.6	589.1	611.0	614.7
42.5°	541.5	550.6	565.3	590.9	600.0
45°	514.1	523.2	543.3	570.8	585.4
47.5°	488.4	497.6	519.5	552.5	570.8
50°	457.3	470.2	497.6	536.0	554.3
52.5°	428.1	439.1	475.6	517.7	539.7
55°	397.0	409.8	453.7	499.4	523.2
57.5°	369.5	380.5	429.9	481.1	508.6
60°	334.8	349.4	406.1	461.0	488.4
62.5°	298.2	320.1	382.3	439.1	468.3
65°	263.4	289.0	360.4	417.1	446.4
67.5°	232.3	259.8	332.9	393.3	420.8
70°	195.7	230.5	305.5	364.0	395.1
72.5°	162.8	201.2	274.4	332.9	360.4
75°	129.9	172.0	243.3	292.7	309.2
77.5°	100.6	140.9	208.5	223.2	225.0
80°	75.0	111.6	155.5	157.3	162.8
82.5°	51.2	78.7	100.6	109.8	111.6
85°	32.9	45.7	56.7	58.5	62.2
87.5°	14.6	16.5	20.1	18.3	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)