

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: P388231

Luminaire Tested: **22CZ2-24VHE-UNV-L950-CD1-SWPD1-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: P388231  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-24VHE-UNV-L950-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2239.5 lumens  
Efficiency: N/A  
Efficacy: 128.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

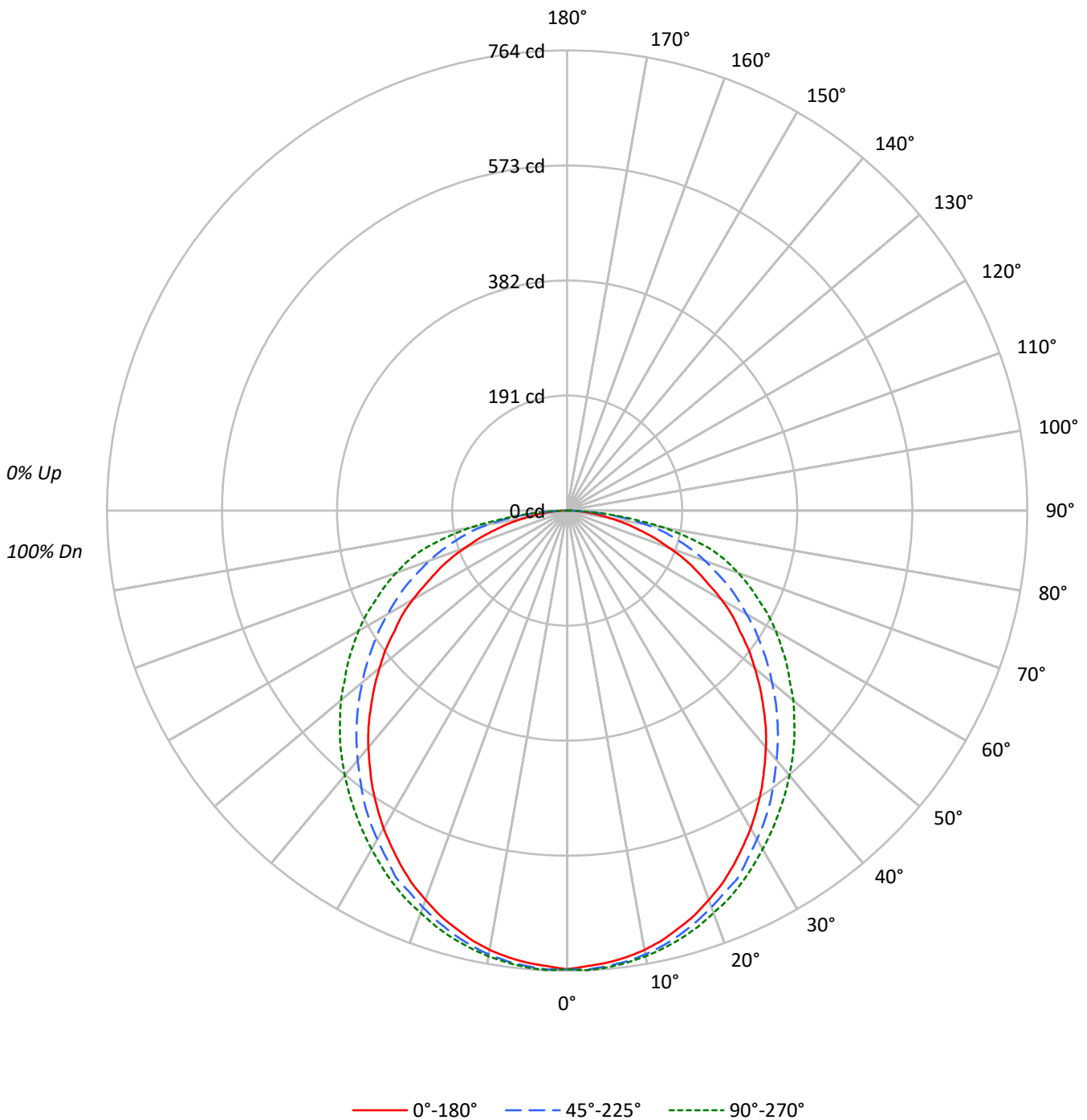
Input Watts (W): 17.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RW	70	50	30	10	70	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
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25

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

	0°	45°	90°
0°	2049	2049	2049
5°	2036	2051	2057
10°	2023	2044	2054
15°	1999	2029	2048
20°	1969	2007	2036
25°	1934	1996	2029
30°	1894	1959	2017
35°	1850	1933	2013
40°	1804	1901	2017
45°	1753	1879	2030
50°	1702	1859	2053
55°	1644	1851	2089
60°	1595	1850	2153
65°	1515	1880	2231
70°	1413	1916	2375
75°	1294	1982	2566
80°	1127	2066	2528
85°	988	1837	2007



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.0	3.2
10°-20°	205.1	9.2
20°-30°	307.9	13.7
30°-40°	367.9	16.4
40°-50°	382.6	17.1
50°-60°	354.6	15.8
60°-70°	290.9	13.0
70°-80°	196.6	8.8
80°-90°	61.8	2.8
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°	585.1	26.1
0°-40°	953.0	42.6
0°-60°	1690.2	75.5
0°-90°	2239.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2239.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	762	762	762	762	762	
5°	754	755	759	760	762	72
15°	717	721	728	733	735	202
25°	651	657	672	680	683	300
35°	563	571	588	606	613	352
45°	461	469	494	522	533	356
55°	350	362	394	430	445	315
65°	238	251	295	334	350	235
75°	124	146	191	229	247	132
85°	32	44	60	66	65	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	761.5	761.5	761.5	761.5	761.5
2.5°	757.1	759.3	762.6	763.7	763.7
5°	753.8	754.9	759.3	760.4	761.5
7.5°	748.2	750.5	754.9	756.0	757.1
10°	740.5	742.7	748.2	750.5	751.6
12.5°	730.6	732.8	739.4	742.7	743.8
15°	717.4	720.7	728.4	732.8	735.0
17.5°	704.2	707.5	715.2	721.8	724.0
20°	687.6	695.4	700.9	709.7	710.8
22.5°	671.1	675.5	685.4	694.3	698.7
25°	651.3	656.8	672.2	679.9	683.2
27.5°	630.3	638.0	650.2	662.3	666.7
30°	609.4	614.9	630.3	644.7	649.1
32.5°	586.3	594.0	610.5	624.8	631.4
35°	563.1	570.8	588.5	606.1	612.7
37.5°	537.8	546.6	564.2	585.2	594.0
40°	513.5	520.1	541.1	566.4	574.1
42.5°	488.2	495.9	517.9	545.5	554.3
45°	460.6	469.4	493.7	522.3	533.4
47.5°	434.2	443.0	469.4	498.1	511.3
50°	406.6	417.7	444.1	477.2	490.4
52.5°	380.2	390.1	419.9	454.0	466.1
55°	350.4	361.5	394.5	429.8	445.2
57.5°	326.2	333.9	370.3	406.6	422.1
60°	296.4	306.4	343.8	382.4	400.0
62.5°	264.5	281.0	319.6	359.2	376.9
65°	238.0	251.3	295.3	333.9	350.4
67.5°	210.5	224.8	267.8	308.6	327.3
70°	179.6	198.4	243.5	284.3	301.9
72.5°	152.1	171.9	218.2	257.9	276.6
75°	124.5	145.5	190.6	229.2	246.8
77.5°	98.1	121.2	165.3	195.1	206.1
80°	72.7	94.8	133.3	154.3	163.1
82.5°	50.7	69.4	98.1	109.1	111.3
85°	32.0	44.1	59.5	66.1	65.0
87.5°	14.3	17.6	22.0	24.2	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)