

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: P389167

Luminaire Tested: **22CZ2-24VHE-S-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: P389167  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-24VHE-S-UNV-L950-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2353.2 lumens  
Efficiency: N/A  
Efficacy: 134.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

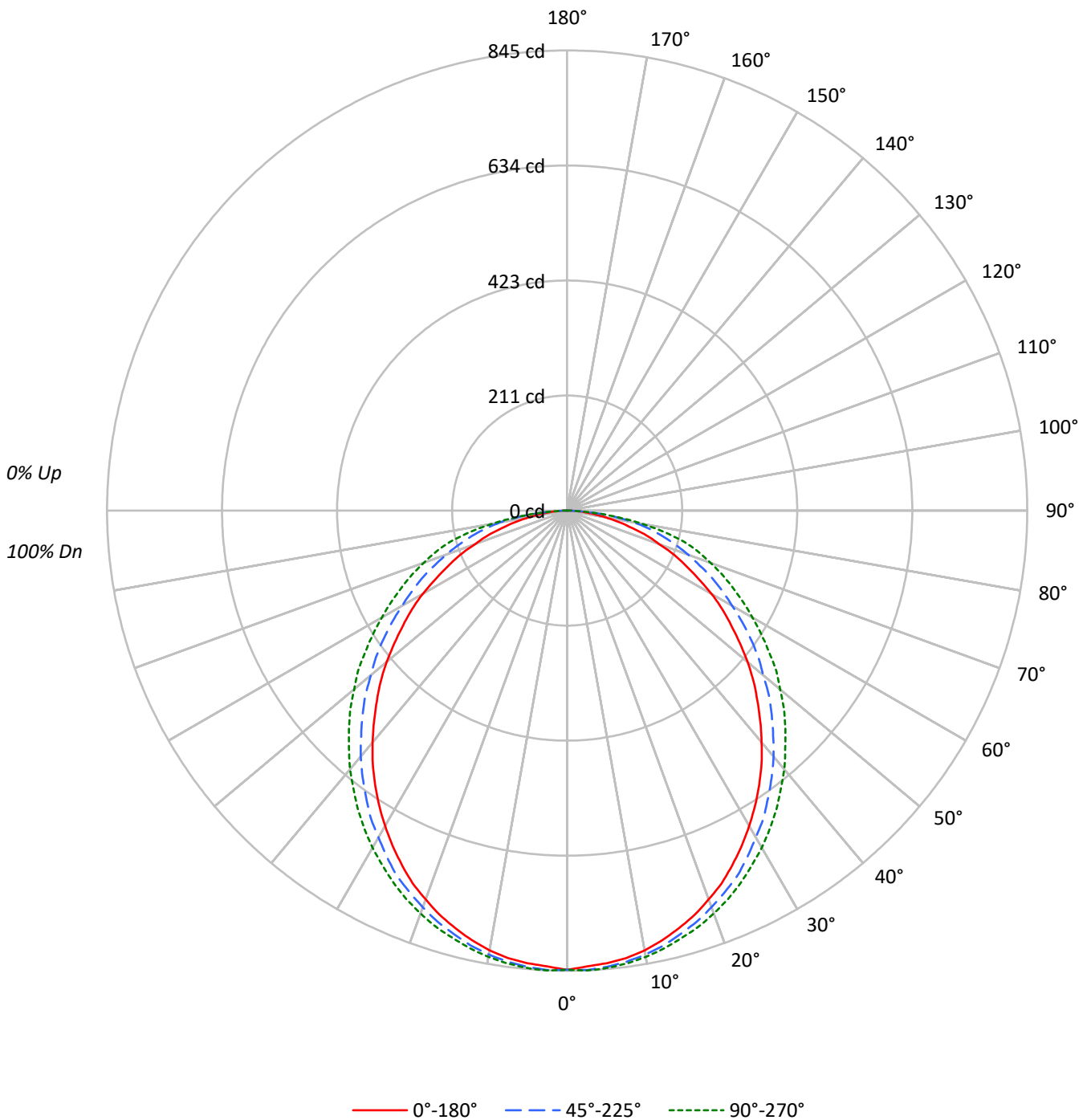
Input Watts (W): 17.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2269	2269	2269
5°	2254	2272	2278
10°	2241	2262	2274
15°	2211	2242	2264
20°	2176	2220	2254
25°	2132	2197	2240
30°	2078	2153	2221
35°	2020	2114	2200
40°	1952	2071	2179
45°	1880	2022	2156
50°	1811	1967	2137
55°	1726	1932	2122
60°	1648	1885	2116
65°	1538	1874	2139
70°	1417	1858	2203
75°	1279	1884	2318
80°	1106	1940	2177
85°	914	1627	1627



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.7	3.4
10°-20°	226.9	9.6
20°-30°	339.6	14.4
30°-40°	402.1	17.1
40°-50°	409.8	17.4
50°-60°	367.3	15.6
60°-70°	287.6	12.2
70°-80°	185.4	7.9
80°-90°	54.8	2.3
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°	646.2	27.5
0°-40°	1048.3	44.5
0°-60°	1825.4	77.6
0°-90°	2353.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2353.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	843	843	843	843	843	
5°	834	837	841	842	843	79
15°	794	798	805	811	812	224
25°	718	725	740	750	754	331
35°	615	622	643	663	670	384
45°	494	505	531	559	566	382
55°	368	380	412	440	452	330
65°	242	256	294	323	336	240
75°	123	142	181	212	223	132
85°	30	41	53	53	53	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	843.2	843.2	843.2	843.2	843.2
2.5°	837.7	839.9	844.3	845.4	845.4
5°	834.4	836.6	841.0	842.1	843.2
7.5°	829.0	830.0	835.5	837.7	838.8
10°	820.2	822.4	827.9	831.1	832.2
12.5°	808.1	811.4	818.0	822.4	823.5
15°	793.8	798.2	804.8	811.4	812.5
17.5°	778.4	782.8	791.6	799.3	801.5
20°	759.8	765.3	775.2	783.9	787.2
22.5°	741.1	745.5	757.6	768.6	771.9
25°	718.1	724.6	740.0	749.9	754.3
27.5°	693.9	701.6	717.0	730.1	734.5
30°	668.7	676.3	692.8	709.3	714.8
32.5°	642.3	651.1	670.8	687.3	692.8
35°	614.9	622.5	643.4	663.2	669.7
37.5°	586.3	592.9	617.0	637.9	644.5
40°	555.6	564.3	589.6	613.8	620.3
42.5°	524.8	534.7	560.0	586.3	592.9
45°	494.1	505.1	531.4	558.9	566.5
47.5°	464.4	473.2	502.9	529.2	540.2
50°	432.6	441.4	469.9	499.6	510.5
52.5°	399.7	411.7	442.5	471.0	484.2
55°	367.8	379.9	411.7	440.3	452.4
57.5°	338.2	348.0	381.0	410.6	422.7
60°	306.3	315.1	350.2	382.1	393.1
62.5°	272.3	285.5	321.7	351.3	364.5
65°	241.5	255.8	294.3	322.8	336.0
67.5°	213.0	226.2	263.5	294.3	308.5
70°	180.1	197.6	236.1	266.8	280.0
72.5°	153.7	169.1	208.6	239.4	253.6
75°	123.0	141.6	181.2	211.9	222.9
77.5°	97.7	116.4	153.7	177.9	183.4
80°	71.4	90.0	125.2	137.2	140.5
82.5°	48.3	65.9	90.0	93.3	94.4
85°	29.6	40.6	52.7	52.7	52.7
87.5°	14.3	16.5	18.7	17.6	17.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)