

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: P390200

Luminaire Tested: **22CZ2-24VHE-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: P390200  
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: 22CZ2-24VHE-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: 1525.2 lumens  
Efficiency: N/A  
Efficacy: 87.2 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

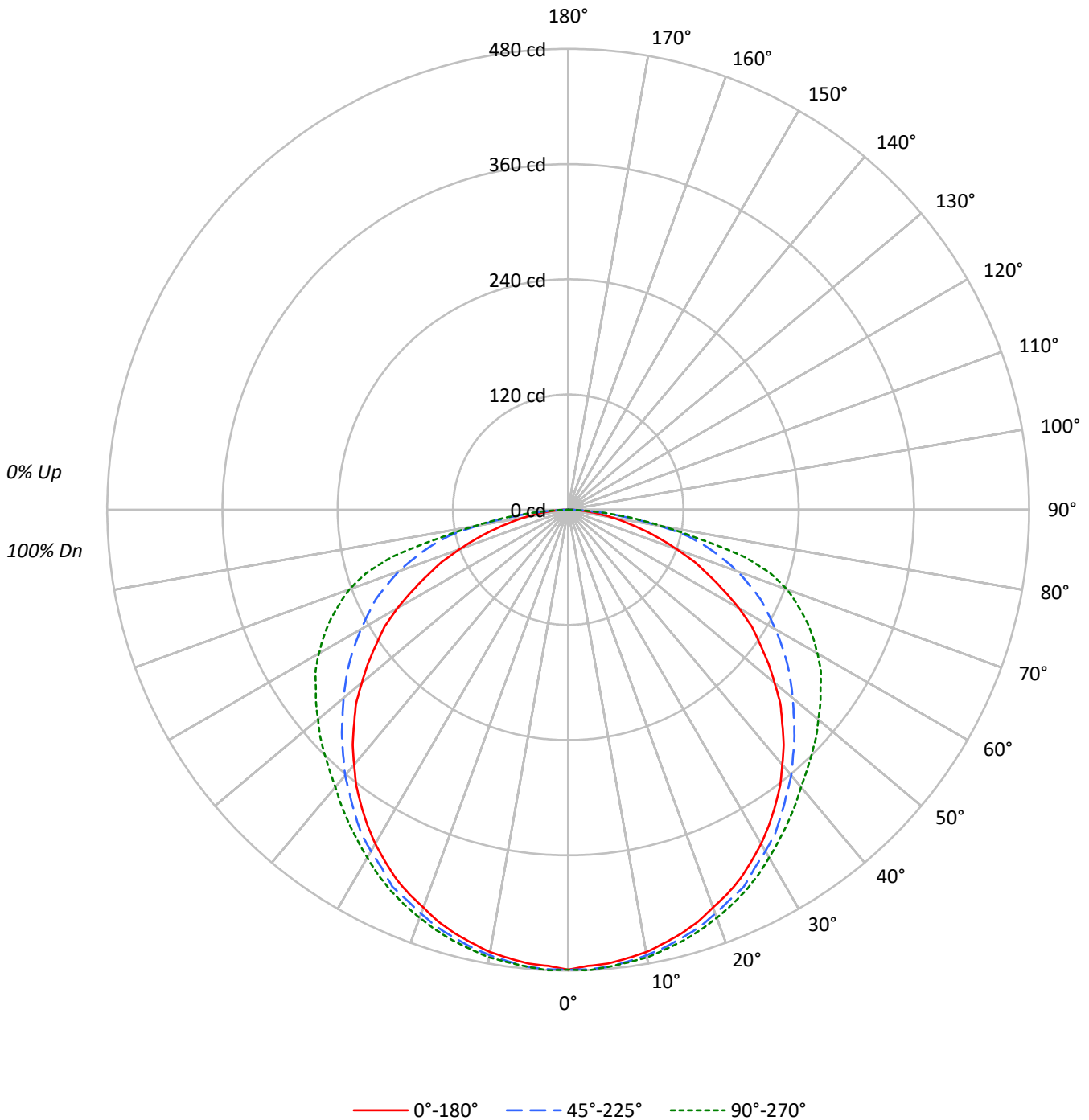
Input Watts (W): 17.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1289	1289	1289
5°	1282	1291	1291
10°	1279	1288	1294
15°	1272	1285	1294
20°	1263	1282	1295
25°	1259	1286	1299
30°	1248	1276	1300
35°	1235	1272	1308
40°	1218	1269	1324
45°	1200	1268	1366
50°	1174	1278	1423
55°	1142	1306	1506
60°	1105	1341	1612
65°	1029	1407	1743
70°	945	1474	1907
75°	829	1551	1971
80°	713	1478	1548
85°	624	1074	1176



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.3	3.0
10°-20°	130.1	8.5
20°-30°	198.5	13.0
30°-40°	242.4	15.9
40°-50°	259.2	17.0
50°-60°	250.2	16.4
60°-70°	215.3	14.1
70°-80°	145.7	9.6
80°-90°	38.4	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°	374.0	24.5
0°-40°	616.4	40.4
0°-60°	1125.7	73.8
0°-90°	1525.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1525.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	479	479	479	479	479	
5°	475	476	478	478	478	45
15°	457	458	461	463	464	129
25°	424	426	433	435	438	195
35°	376	379	387	395	398	235
45°	315	321	333	350	359	243
55°	244	251	278	306	321	218
65°	162	177	221	256	274	161
75°	80	106	149	180	190	85
85°	20	28	35	36	38	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	479.1	479.1	479.1	479.1	479.1
2.5°	475.7	476.8	479.1	479.1	480.2
5°	474.6	475.7	478.0	478.0	478.0
7.5°	471.2	472.4	474.6	475.7	475.7
10°	467.9	469.0	471.2	472.4	473.5
12.5°	462.3	463.4	466.7	469.0	469.0
15°	456.7	457.8	461.1	463.4	464.5
17.5°	449.9	452.2	455.5	457.8	458.9
20°	440.9	443.2	447.7	451.0	452.2
22.5°	433.1	435.3	439.8	443.2	445.4
25°	424.1	426.4	433.1	435.3	437.6
27.5°	412.9	415.1	420.7	425.2	428.6
30°	401.7	403.9	410.7	416.3	418.5
32.5°	389.3	392.7	400.6	405.0	408.4
35°	375.9	379.2	387.1	394.9	398.3
37.5°	362.4	365.8	373.6	383.7	388.2
40°	346.7	351.2	361.3	374.7	377.0
42.5°	332.1	337.7	346.7	362.4	368.0
45°	315.3	320.9	333.2	350.1	359.0
47.5°	299.6	305.2	318.6	338.8	350.1
50°	280.5	288.4	305.2	328.7	340.0
52.5°	262.5	269.3	291.7	317.5	331.0
55°	243.5	251.3	278.3	306.3	320.9
57.5°	226.6	233.4	263.7	295.1	311.9
60°	205.3	214.3	249.1	282.7	299.6
62.5°	182.9	196.3	234.5	269.3	287.2
65°	161.6	177.3	221.0	255.8	273.8
67.5°	142.5	159.3	204.2	241.2	258.1
70°	120.1	141.4	187.4	223.3	242.4
72.5°	99.9	123.4	168.3	204.2	221.0
75°	79.7	105.5	149.2	179.5	189.6
77.5°	61.7	86.4	127.9	136.9	138.0
80°	46.0	68.4	95.4	96.5	99.9
82.5°	31.4	48.2	61.7	67.3	68.4
85°	20.2	28.0	34.8	35.9	38.1
87.5°	9.0	10.1	12.3	11.2	11.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)