

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: P390127

Luminaire Tested: **22CZ2-20VHE-HRP-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: P390127  
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: 22CZ2-20VHE-HRP-UNV-L950-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1526.3 lumens  
Efficiency: N/A  
Efficacy: 107.5 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

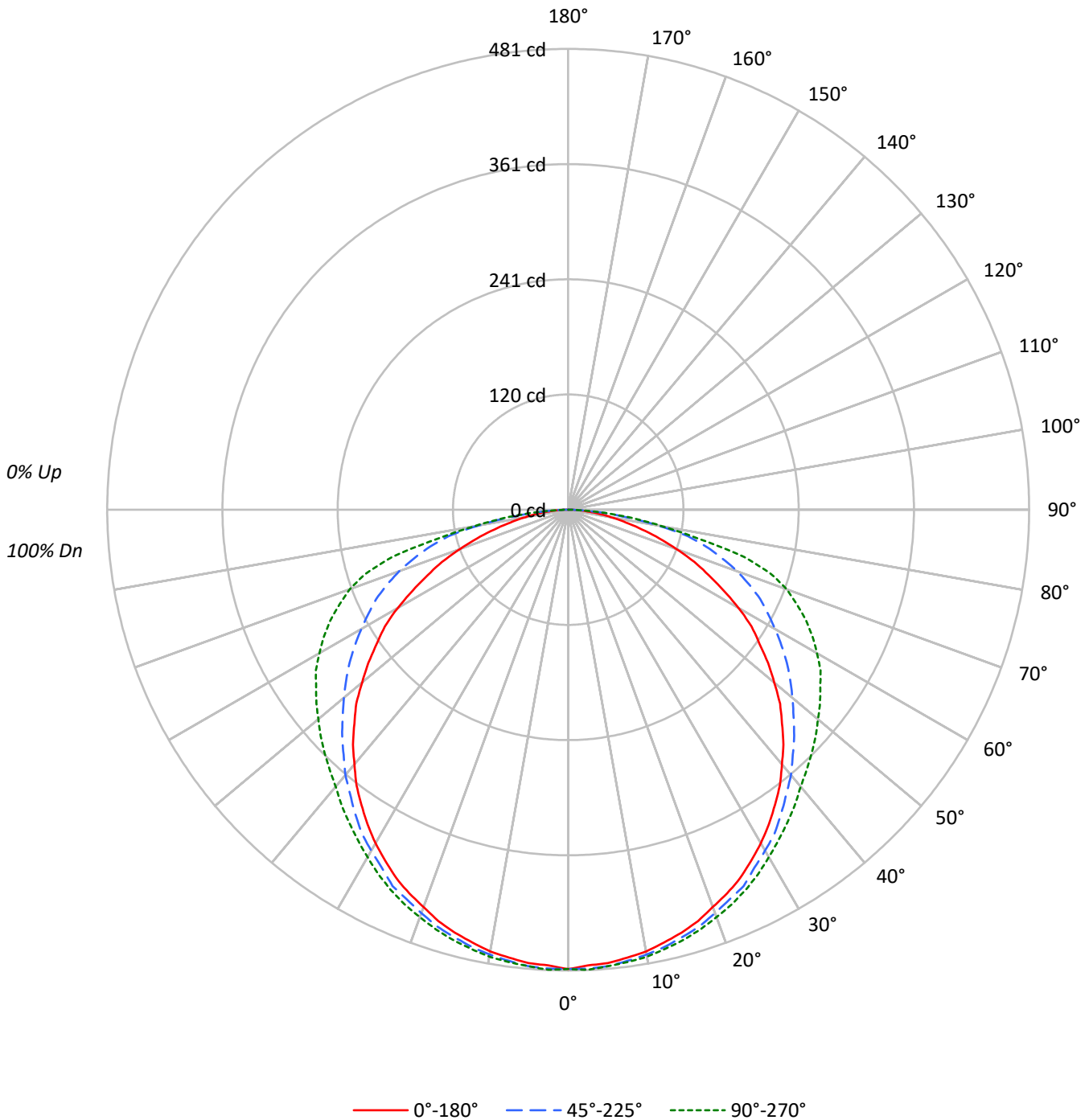
Input Watts (W): 14.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1290	1290	1290
5°	1283	1292	1292
10°	1279	1289	1295
15°	1273	1286	1295
20°	1264	1283	1296
25°	1260	1287	1300
30°	1249	1277	1301
35°	1236	1273	1309
40°	1219	1270	1325
45°	1201	1269	1367
50°	1175	1279	1424
55°	1143	1307	1506
60°	1106	1342	1614
65°	1030	1408	1745
70°	945	1475	1908
75°	829	1552	1973
80°	713	1478	1548
85°	624	1074	1179



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.4	3.0
10°-20°	130.2	8.5
20°-30°	198.7	13.0
30°-40°	242.6	15.9
40°-50°	259.4	17.0
50°-60°	250.3	16.4
60°-70°	215.5	14.1
70°-80°	145.8	9.6
80°-90°	38.5	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°	374.2	24.5
0°-40°	616.8	40.4
0°-60°	1126.5	73.8
0°-90°	1526.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1526.3	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	462	464	465	129
25°	424	427	433	436	438	195
35°	376	380	387	395	399	235
45°	316	321	334	350	359	244
55°	244	252	278	306	321	218
65°	162	177	221	256	274	161
75°	80	106	149	180	190	86
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°	479.4	479.4	479.4	479.4	479.4
2.5°	476.1	477.2	479.4	479.4	480.6
5°	474.9	476.1	478.3	478.3	478.3
7.5°	471.6	472.7	474.9	476.1	476.1
10°	468.2	469.3	471.6	472.7	473.8
12.5°	462.6	463.7	467.1	469.3	469.3
15°	457.0	458.1	461.5	463.7	464.8
17.5°	450.2	452.5	455.9	458.1	459.2
20°	441.3	443.5	448.0	451.4	452.5
22.5°	433.4	435.6	440.1	443.5	445.8
25°	424.4	426.7	433.4	435.6	437.9
27.5°	413.2	415.4	421.1	425.5	428.9
30°	402.0	404.2	410.9	416.6	418.8
32.5°	389.6	393.0	400.8	405.3	408.7
35°	376.1	379.5	387.4	395.2	398.6
37.5°	362.7	366.0	373.9	384.0	388.5
40°	346.9	351.4	361.5	375.0	377.3
42.5°	332.4	338.0	346.9	362.7	368.3
45°	315.5	321.1	333.5	350.3	359.3
47.5°	299.8	305.4	318.9	339.1	350.3
50°	280.7	288.6	305.4	329.0	340.2
52.5°	262.7	269.5	291.9	317.8	331.2
55°	243.6	251.5	278.5	306.5	321.1
57.5°	226.8	233.5	263.9	295.3	312.1
60°	205.5	214.5	249.3	282.9	299.8
62.5°	183.0	196.5	234.7	269.5	287.4
65°	161.7	177.4	221.2	256.0	274.0
67.5°	142.6	159.4	204.4	241.4	258.2
70°	120.1	141.5	187.5	223.4	242.5
72.5°	99.9	123.5	168.4	204.4	221.2
75°	79.7	105.5	149.3	179.6	189.8
77.5°	61.8	86.5	128.0	137.0	138.1
80°	46.0	68.5	95.4	96.6	99.9
82.5°	31.4	48.3	61.8	67.4	68.5
85°	20.2	28.1	34.8	35.9	38.2
87.5°	9.0	10.1	12.4	11.2	11.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)