

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: P388067

Luminaire Tested: **22CZ2-50VHE-SQR-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: P388067  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-50VHE-SQR-UNV-L950-CD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4436.6 lumens  
Efficiency: N/A  
Efficacy: 122.6 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

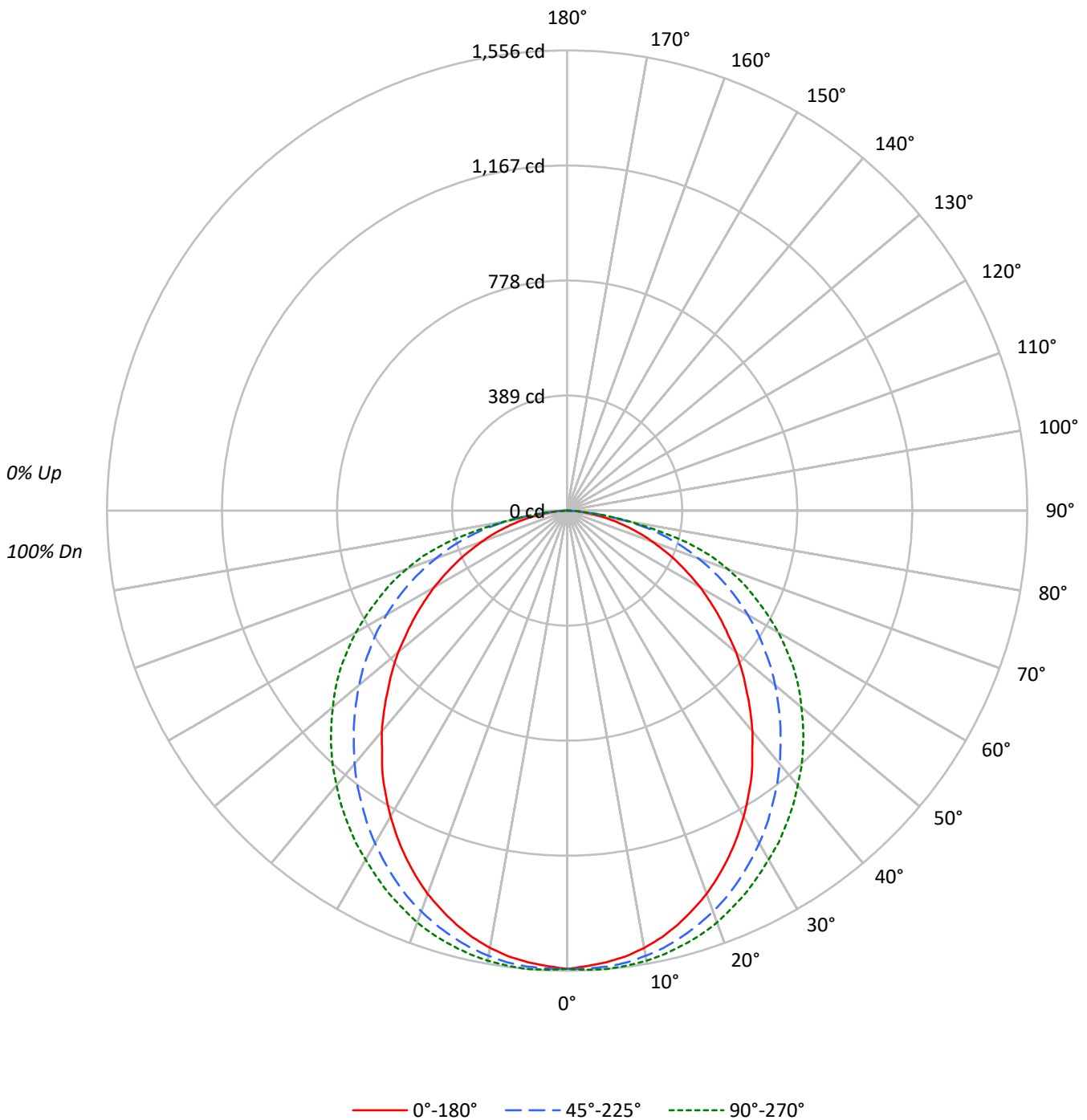
Input Watts (W): 36.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	4170	4170	4170
5°	4141	4181	4203
10°	4103	4177	4223
15°	4036	4159	4235
20°	3950	4131	4245
25°	3839	4089	4239
30°	3710	4037	4233
35°	3576	3978	4247
40°	3425	3928	4261
45°	3261	3879	4295
50°	3121	3844	4328
55°	2954	3813	4396
60°	2799	3796	4442
65°	2614	3768	4478
70°	2402	3711	4540
75°	2168	3612	4378
80°	1860	3199	3296
85°	1494	1886	1494



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.9	3.3
10°-20°	420.1	9.5
20°-30°	630.9	14.2
30°-40°	752.5	17.0
40°-50°	778.0	17.5
50°-60°	715.3	16.1
60°-70°	569.4	12.8
70°-80°	347.9	7.8
80°-90°	75.6	1.7
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°	1197.9	27.0
0°-40°	1950.4	44.0
0°-60°	3443.7	77.6
0°-90°	4436.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4436.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1550	1550	1550	1550	1550	
5°	1533	1537	1548	1554	1556	145
15°	1449	1466	1493	1514	1520	408
25°	1293	1324	1377	1415	1428	595
35°	1089	1135	1211	1274	1293	679
45°	857	918	1019	1101	1129	663
55°	630	699	813	906	937	563
65°	411	480	592	674	703	407
75°	208	270	347	408	421	222
85°	48	59	61	53	48	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1549.8	1549.8	1549.8	1549.8	1549.8
2.5°	1541.4	1543.5	1549.8	1554.0	1554.0
5°	1533.0	1537.2	1547.7	1554.0	1556.1
7.5°	1520.3	1526.6	1541.4	1549.8	1551.9
10°	1501.4	1509.8	1528.8	1541.4	1545.6
12.5°	1478.2	1490.9	1514.0	1530.9	1535.1
15°	1448.7	1465.6	1493.0	1514.0	1520.3
17.5°	1415.0	1436.1	1469.8	1495.1	1503.5
20°	1379.2	1400.3	1442.4	1471.9	1482.4
22.5°	1337.1	1364.5	1412.9	1446.6	1455.1
25°	1292.9	1324.5	1377.1	1415.0	1427.7
27.5°	1244.5	1282.4	1339.2	1385.6	1396.1
30°	1193.9	1234.0	1299.2	1349.8	1362.4
32.5°	1141.3	1187.6	1257.1	1314.0	1330.8
35°	1088.7	1135.0	1210.8	1274.0	1292.9
37.5°	1027.6	1082.3	1166.6	1231.8	1255.0
40°	974.9	1027.6	1118.1	1189.7	1212.9
42.5°	916.0	972.8	1067.6	1145.5	1172.9
45°	857.0	918.1	1019.2	1101.3	1128.7
47.5°	802.3	863.3	968.6	1055.0	1082.3
50°	745.4	808.6	918.1	1006.5	1033.9
52.5°	684.4	753.8	867.6	956.0	987.6
55°	629.6	699.1	812.8	905.5	937.0
57.5°	572.8	644.4	762.3	850.7	880.2
60°	520.1	589.6	705.4	791.8	825.4
62.5°	463.3	534.9	648.6	732.8	764.4
65°	410.6	480.1	591.7	673.8	703.3
67.5°	358.0	427.5	532.7	610.7	644.4
70°	305.3	374.8	471.7	547.5	577.0
72.5°	259.0	320.1	412.7	482.2	509.6
75°	208.5	269.5	347.4	408.5	421.1
77.5°	162.1	216.9	282.2	309.5	313.8
80°	120.0	162.1	206.4	212.7	212.7
82.5°	80.0	111.6	128.4	130.6	128.4
85°	48.4	59.0	61.1	52.6	48.4
87.5°	16.8	16.8	10.5	6.3	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)