

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: P388210

Luminaire Tested: **22CZ2-80VHE-SQR-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: P388210  
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: 22CZ2-80VHE-SQR-UNV-L950-CD1-SWPD1-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: 6958.9 lumens  
Efficiency: N/A  
Efficacy: 117.7 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

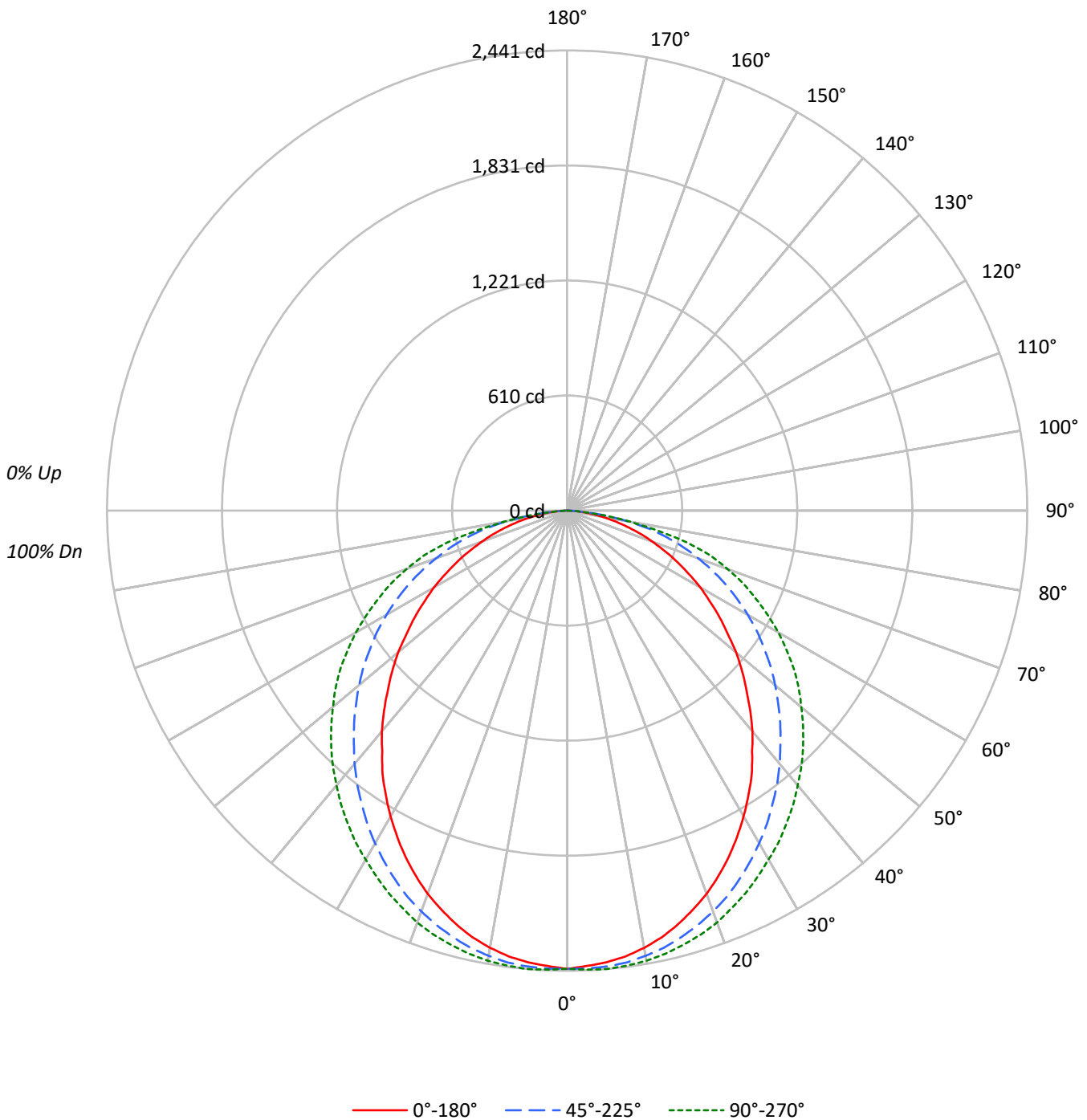
Input Watts (W): 59.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	6542	6542	6542
5°	6495	6558	6593
10°	6435	6552	6624
15°	6331	6524	6644
20°	6195	6479	6659
25°	6021	6414	6649
30°	5819	6332	6640
35°	5610	6239	6662
40°	5372	6161	6683
45°	5116	6084	6737
50°	4895	6029	6789
55°	4633	5981	6896
60°	4391	5955	6968
65°	4101	5910	7025
70°	3768	5821	7120
75°	3400	5666	6868
80°	2918	5016	5170
85°	2347	2958	2347



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	230.5	3.3
10°-20°	658.9	9.5
20°-30°	989.6	14.2
30°-40°	1180.3	17.0
40°-50°	1220.3	17.5
50°-60°	1121.9	16.1
60°-70°	893.2	12.8
70°-80°	545.7	7.8
80°-90°	118.6	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°	1879.0	27.0
0°-40°	3059.2	44.0
0°-60°	5401.5	77.6
0°-90°	6958.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6958.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2431	2431	2431	2431	2431	
5°	2404	2411	2428	2438	2441	228
15°	2272	2299	2342	2375	2385	640
25°	2028	2078	2160	2220	2239	933
35°	1708	1780	1899	1998	2028	1065
45°	1344	1440	1599	1727	1770	1040
55°	988	1097	1275	1420	1470	883
65°	644	753	928	1057	1103	638
75°	327	423	545	641	661	348
85°	76	92	96	83	76	88
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2430.9	2430.9	2430.9	2430.9	2430.9
2.5°	2417.7	2421.0	2430.9	2437.5	2437.5
5°	2404.5	2411.1	2427.6	2437.5	2440.8
7.5°	2384.7	2394.6	2417.7	2430.9	2434.2
10°	2354.9	2368.2	2397.9	2417.7	2424.3
12.5°	2318.6	2338.4	2374.8	2401.2	2407.8
15°	2272.4	2298.8	2341.7	2374.8	2384.7
17.5°	2219.5	2252.6	2305.4	2345.0	2358.2
20°	2163.4	2196.4	2262.5	2308.7	2325.2
22.5°	2097.3	2140.3	2216.2	2269.1	2282.3
25°	2028.0	2077.5	2160.1	2219.5	2239.3
27.5°	1952.0	2011.4	2100.6	2173.3	2189.8
30°	1872.7	1935.5	2037.9	2117.1	2137.0
32.5°	1790.2	1862.8	1971.8	2061.0	2087.4
35°	1707.6	1780.2	1899.1	1998.2	2028.0
37.5°	1611.8	1697.7	1829.8	1932.2	1968.5
40°	1529.2	1611.8	1753.8	1866.1	1902.5
42.5°	1436.7	1525.9	1674.6	1796.8	1839.7
45°	1344.3	1440.1	1598.6	1727.4	1770.3
47.5°	1258.4	1354.2	1519.3	1654.7	1697.7
50°	1169.2	1268.3	1440.1	1578.8	1621.7
52.5°	1073.4	1182.4	1360.8	1499.5	1549.0
55°	987.6	1096.6	1274.9	1420.2	1469.8
57.5°	898.4	1010.7	1195.6	1334.4	1380.6
60°	815.8	924.8	1106.5	1241.9	1294.7
62.5°	726.6	838.9	1017.3	1149.4	1198.9
65°	644.1	753.1	928.1	1056.9	1103.2
67.5°	561.5	670.5	835.6	957.8	1010.7
70°	478.9	587.9	739.8	858.7	905.0
72.5°	406.3	502.0	647.4	756.4	799.3
75°	327.0	422.8	545.0	640.8	660.6
77.5°	254.3	340.2	442.6	485.5	492.1
80°	188.3	254.3	323.7	333.6	333.6
82.5°	125.5	175.1	201.5	204.8	201.5
85°	76.0	92.5	95.8	82.6	76.0
87.5°	26.4	26.4	16.5	9.9	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)