

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: P388209

Luminaire Tested: **22CZ2-80VHE-SQR-UNV-L950-CD1-SDWPD1-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: P388209  
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-SDWPD1-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: 6875.0 lumens  
Efficiency: N/A  
Efficacy: 116.3 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

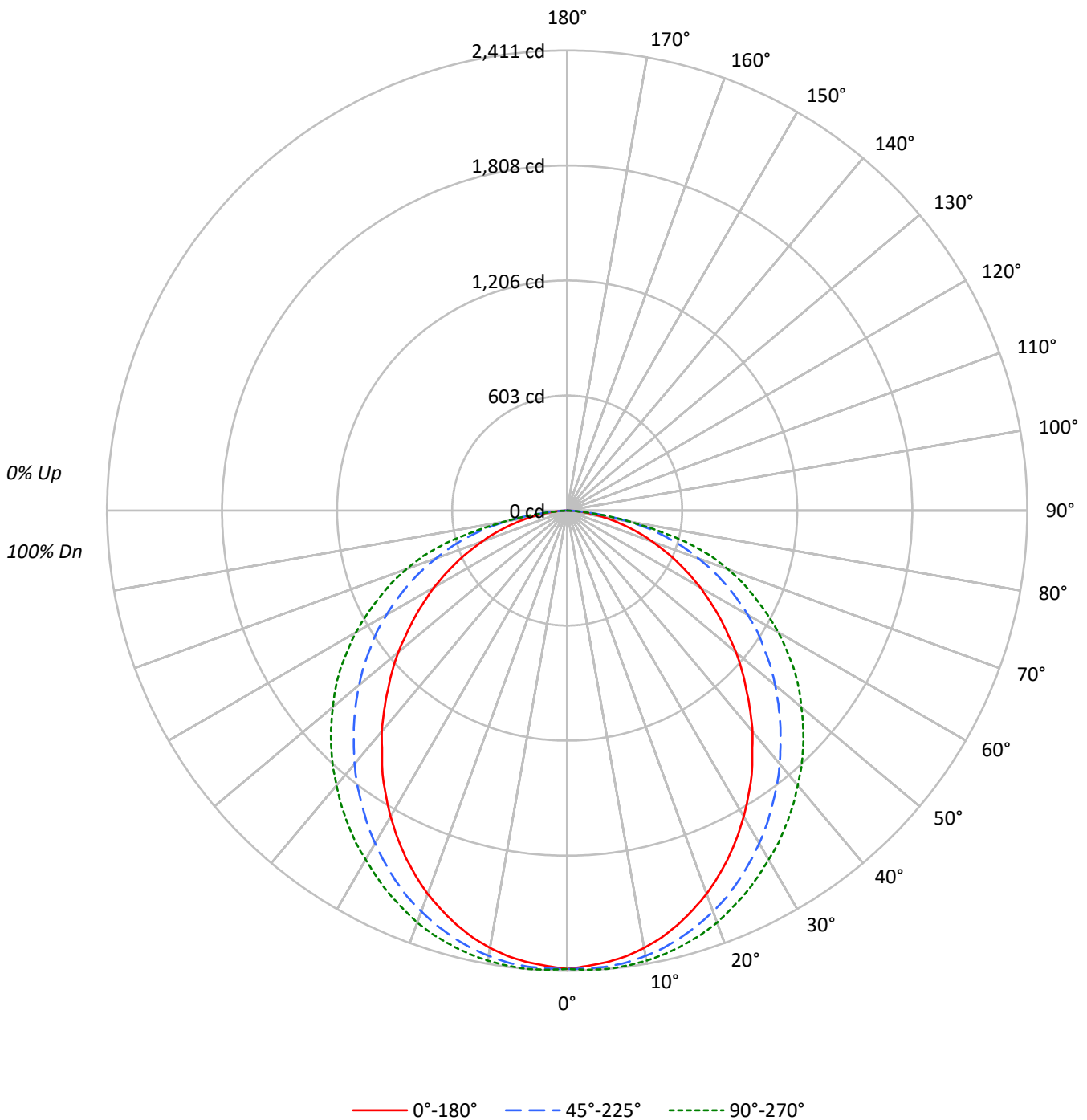
Input Watts (W): 59.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	6463	6463	6463
5°	6417	6478	6514
10°	6357	6473	6545
15°	6254	6445	6563
20°	6121	6401	6578
25°	5949	6336	6569
30°	5749	6256	6560
35°	5542	6164	6582
40°	5307	6087	6602
45°	5054	6010	6656
50°	4836	5956	6707
55°	4578	5909	6813
60°	4338	5883	6884
65°	4052	5838	6940
70°	3722	5751	7035
75°	3358	5598	6785
80°	2882	4956	5108
85°	2319	2921	2319



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	227.7	3.3
10°-20°	651.0	9.5
20°-30°	977.7	14.2
30°-40°	1166.0	17.0
40°-50°	1205.6	17.5
50°-60°	1108.4	16.1
60°-70°	882.4	12.8
70°-80°	539.1	7.8
80°-90°	117.2	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°	1856.3	27.0
0°-40°	3022.4	44.0
0°-60°	5336.3	77.6
0°-90°	6875.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6875.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2402	2402	2402	2402	2402	
5°	2376	2382	2398	2408	2411	225
15°	2245	2271	2314	2346	2356	632
25°	2004	2052	2134	2193	2212	922
35°	1687	1759	1876	1974	2004	1052
45°	1328	1423	1579	1707	1749	1027
55°	976	1083	1260	1403	1452	873
65°	636	744	917	1044	1090	630
75°	323	418	538	633	653	344
85°	75	91	95	82	75	87
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2401.6	2401.6	2401.6	2401.6	2401.6
2.5°	2388.6	2391.8	2401.6	2408.1	2408.1
5°	2375.5	2382.0	2398.3	2408.1	2411.4
7.5°	2355.9	2365.7	2388.6	2401.6	2404.9
10°	2326.6	2339.6	2369.0	2388.6	2395.1
12.5°	2290.7	2310.2	2346.1	2372.2	2378.8
15°	2245.0	2271.1	2313.5	2346.1	2355.9
17.5°	2192.8	2225.4	2277.6	2316.8	2329.8
20°	2137.3	2169.9	2235.2	2280.9	2297.2
22.5°	2072.0	2114.5	2189.5	2241.7	2254.8
25°	2003.5	2052.5	2134.0	2192.8	2212.3
27.5°	1928.5	1987.2	2075.3	2147.1	2163.4
30°	1850.1	1912.1	2013.3	2091.6	2111.2
32.5°	1768.6	1840.4	1948.0	2036.1	2062.2
35°	1687.0	1758.8	1876.3	1974.1	2003.5
37.5°	1592.4	1677.2	1807.7	1908.9	1944.8
40°	1510.8	1592.4	1732.7	1843.6	1879.5
42.5°	1419.4	1507.5	1654.4	1775.1	1817.5
45°	1328.1	1422.7	1579.3	1706.6	1749.0
47.5°	1243.2	1337.8	1501.0	1634.8	1677.2
50°	1155.1	1253.0	1422.7	1559.7	1602.2
52.5°	1060.5	1168.2	1344.4	1481.4	1530.4
55°	975.7	1083.3	1259.5	1403.1	1452.1
57.5°	887.5	998.5	1181.2	1318.3	1364.0
60°	806.0	913.7	1093.1	1226.9	1279.1
62.5°	717.9	828.8	1005.0	1135.5	1184.5
65°	636.3	744.0	916.9	1044.2	1089.9
67.5°	554.7	662.4	825.6	946.3	998.5
70°	473.1	580.8	730.9	848.4	894.1
72.5°	401.4	496.0	639.6	747.2	789.7
75°	323.0	417.7	538.4	633.0	652.6
77.5°	251.3	336.1	437.2	479.7	486.2
80°	186.0	251.3	319.8	329.6	329.6
82.5°	124.0	172.9	199.0	202.3	199.0
85°	75.1	91.4	94.6	81.6	75.1
87.5°	26.1	26.1	16.3	9.8	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)