

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: P388492

Luminaire Tested: **22CZ2-80VHE-UNV-L940-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: P388492  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-80VHE-UNV-L940-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6826.6 lumens  
Efficiency: N/A  
Efficacy: 115.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

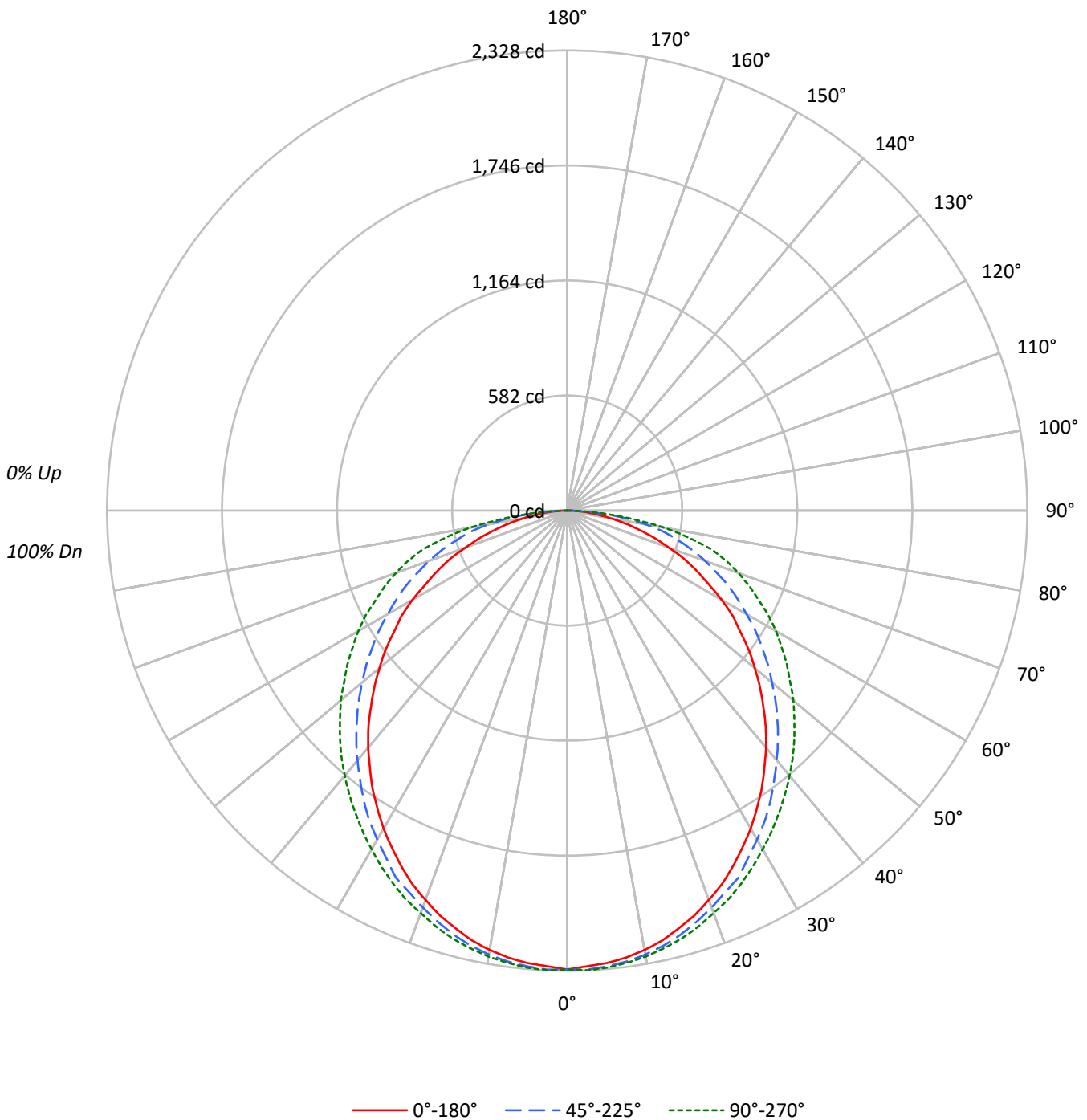
Input Watts (W): 59.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	6246	6246	6246
5°	6207	6252	6270
10°	6168	6233	6260
15°	6092	6186	6242
20°	6003	6118	6204
25°	5895	6084	6184
30°	5772	5970	6148
35°	5639	5893	6136
40°	5499	5794	6148
45°	5343	5727	6187
50°	5189	5667	6258
55°	5012	5642	6367
60°	4863	5641	6563
65°	4620	5733	6802
70°	4308	5841	7242
75°	3947	6042	7823
80°	3436	6299	7705
85°	3007	5601	6120



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	219.5	3.2
10°-20°	625.3	9.2
20°-30°	938.6	13.7
30°-40°	1121.6	16.4
40°-50°	1166.3	17.1
50°-60°	1081.0	15.8
60°-70°	886.7	13.0
70°-80°	599.4	8.8
80°-90°	188.3	2.8
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°	1783.4	26.1
0°-40°	2905.0	42.6
0°-60°	5152.2	75.5
0°-90°	6826.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6826.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2321	2321	2321	2321	2321	
5°	2298	2301	2314	2318	2321	218
15°	2187	2197	2220	2234	2241	617
25°	1985	2002	2049	2073	2083	914
35°	1716	1740	1794	1848	1868	1073
45°	1404	1431	1505	1592	1626	1084
55°	1068	1102	1203	1310	1357	960
65°	726	766	900	1018	1068	717
75°	380	443	581	699	752	403
85°	97	134	181	202	198	111
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2321.2	2321.2	2321.2	2321.2	2321.2
2.5°	2307.7	2314.5	2324.5	2327.9	2327.9
5°	2297.7	2301.0	2314.5	2317.8	2321.2
7.5°	2280.9	2287.6	2301.0	2304.4	2307.7
10°	2257.3	2264.1	2280.9	2287.6	2290.9
12.5°	2227.1	2233.8	2254.0	2264.1	2267.4
15°	2186.8	2196.9	2220.4	2233.8	2240.6
17.5°	2146.5	2156.6	2180.1	2200.2	2207.0
20°	2096.1	2119.6	2136.4	2163.3	2166.6
22.5°	2045.7	2059.2	2089.4	2116.3	2129.7
25°	1985.3	2002.1	2049.1	2072.6	2082.7
27.5°	1921.4	1944.9	1981.9	2018.8	2032.3
30°	1857.6	1874.4	1921.4	1965.1	1978.5
32.5°	1787.1	1810.6	1861.0	1904.6	1924.8
35°	1716.5	1740.0	1793.8	1847.5	1867.7
37.5°	1639.3	1666.1	1719.9	1783.7	1810.6
40°	1565.4	1585.5	1649.3	1726.6	1750.1
42.5°	1488.1	1511.6	1578.8	1662.8	1689.7
45°	1404.1	1431.0	1504.9	1592.2	1625.8
47.5°	1323.5	1350.4	1431.0	1518.3	1558.6
50°	1239.5	1273.1	1353.7	1454.5	1494.8
52.5°	1158.9	1189.1	1279.8	1384.0	1420.9
55°	1068.2	1101.8	1202.6	1310.1	1357.1
57.5°	994.3	1017.8	1128.7	1239.5	1286.6
60°	903.6	933.8	1048.1	1165.6	1219.4
62.5°	806.2	856.6	974.2	1095.1	1148.8
65°	725.6	765.9	900.3	1017.8	1068.2
67.5°	641.6	685.3	816.3	940.6	997.7
70°	547.5	604.6	742.4	866.7	920.4
72.5°	463.6	524.0	665.1	786.0	843.1
75°	379.6	443.4	581.1	698.7	752.4
77.5°	299.0	369.5	503.9	594.6	628.2
80°	221.7	288.9	406.5	470.3	497.2
82.5°	154.5	211.6	299.0	332.6	339.3
85°	97.4	134.4	181.4	201.5	198.2
87.5°	43.7	53.7	67.2	73.9	70.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)