

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: P388493

Luminaire Tested: **22CZ2-80VHE-UNV-L940-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: P388493  
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-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

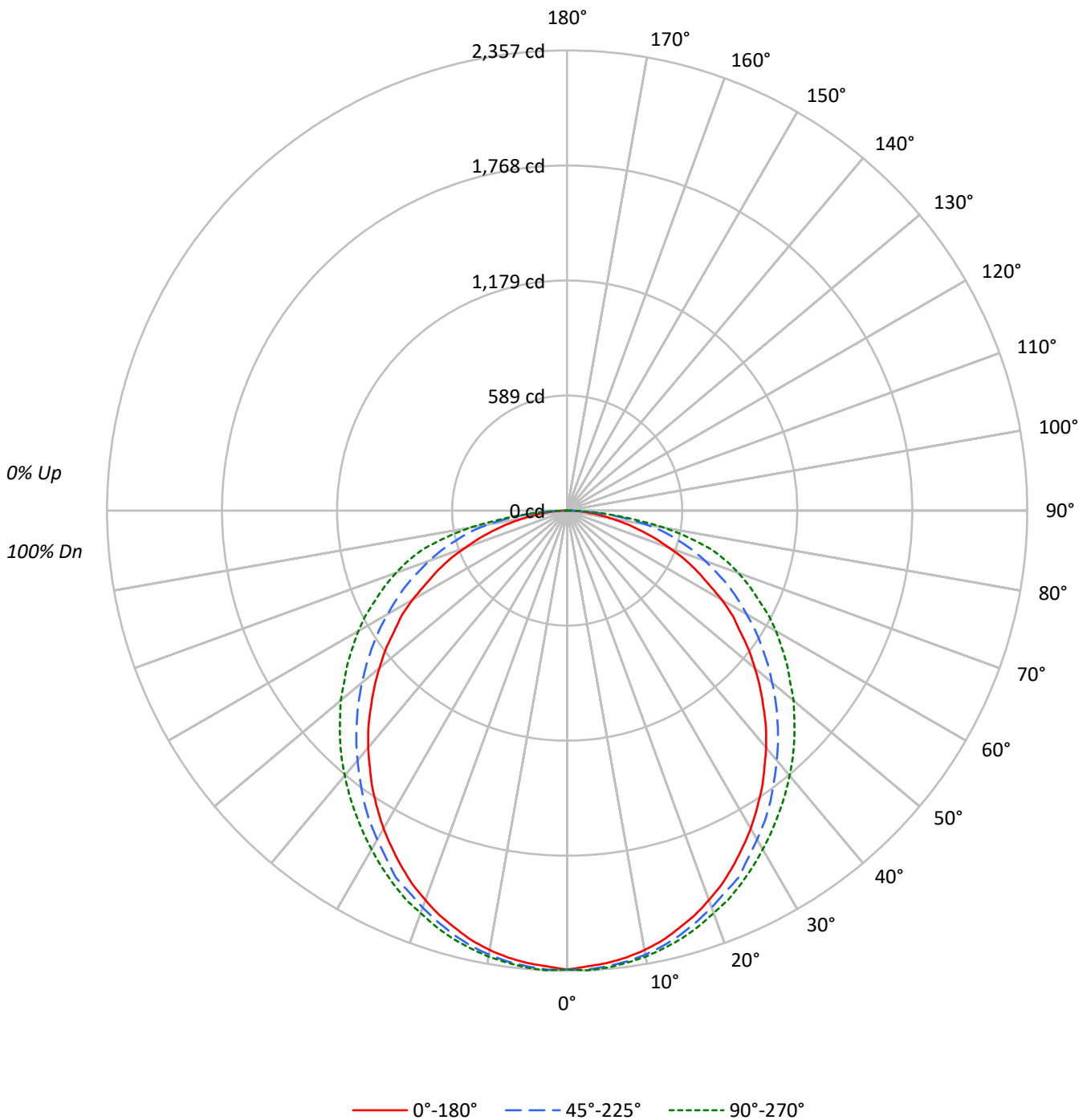
Lumens per Lamp: N/A  
Luminaire Lumens: 6912.4 lumens  
Efficiency: N/A  
Efficacy: 117.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25

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

	0°	45°	90°
0°	6325	6325	6325
5°	6284	6330	6349
10°	6246	6311	6339
15°	6169	6264	6320
20°	6078	6195	6283
25°	5969	6160	6261
30°	5845	6046	6225
35°	5710	5967	6213
40°	5568	5867	6225
45°	5411	5799	6265
50°	5254	5739	6337
55°	5074	5713	6447
60°	4924	5711	6645
65°	4678	5805	6887
70°	4362	5914	7333
75°	3997	6118	7922
80°	3479	6378	7801
85°	3044	5672	6197



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	222.3	3.2
10°-20°	633.1	9.2
20°-30°	950.4	13.7
30°-40°	1135.7	16.4
40°-50°	1180.9	17.1
50°-60°	1094.6	15.8
60°-70°	897.8	13.0
70°-80°	606.9	8.8
80°-90°	190.7	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°	1805.8	26.1
0°-40°	2941.5	42.6
0°-60°	5217.0	75.5
0°-90°	6912.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6912.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2350	2350	2350	2350	2350	
5°	2326	2330	2344	2347	2350	221
15°	2214	2224	2248	2262	2269	625
25°	2010	2027	2075	2099	2109	926
35°	1738	1762	1816	1871	1891	1086
45°	1422	1449	1524	1612	1646	1098
55°	1082	1116	1218	1326	1374	972
65°	735	776	912	1031	1082	726
75°	384	449	588	708	762	408
85°	99	136	184	204	201	112
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2350.3	2350.3	2350.3	2350.3	2350.3
2.5°	2336.7	2343.5	2353.7	2357.1	2357.1
5°	2326.5	2329.9	2343.5	2346.9	2350.3
7.5°	2309.5	2316.3	2329.9	2333.3	2336.7
10°	2285.7	2292.5	2309.5	2316.3	2319.7
12.5°	2255.1	2261.9	2282.3	2292.5	2295.9
15°	2214.3	2224.5	2248.3	2261.9	2268.7
17.5°	2173.5	2183.7	2207.5	2227.9	2234.7
20°	2122.5	2146.3	2163.3	2190.5	2193.9
22.5°	2071.4	2085.0	2115.6	2142.9	2156.5
25°	2010.2	2027.2	2074.8	2098.6	2108.8
27.5°	1945.6	1969.4	2006.8	2044.2	2057.8
30°	1881.0	1898.0	1945.6	1989.8	2003.4
32.5°	1809.5	1833.3	1884.4	1928.6	1949.0
35°	1738.1	1761.9	1816.3	1870.8	1891.2
37.5°	1659.9	1687.1	1741.5	1806.1	1833.3
40°	1585.0	1605.4	1670.1	1748.3	1772.1
42.5°	1506.8	1530.6	1598.6	1683.7	1710.9
45°	1421.8	1449.0	1523.8	1612.2	1646.3
47.5°	1340.1	1367.3	1449.0	1537.4	1578.2
50°	1255.1	1289.1	1370.8	1472.8	1513.6
52.5°	1173.5	1204.1	1295.9	1401.4	1438.8
55°	1081.6	1115.6	1217.7	1326.5	1374.2
57.5°	1006.8	1030.6	1142.9	1255.1	1302.7
60°	915.0	945.6	1061.2	1180.3	1234.7
62.5°	816.3	867.3	986.4	1108.8	1163.3
65°	734.7	775.5	911.6	1030.6	1081.6
67.5°	649.7	693.9	826.5	952.4	1010.2
70°	554.4	612.2	751.7	877.6	932.0
72.5°	469.4	530.6	673.5	795.9	853.7
75°	384.4	449.0	588.4	707.5	761.9
77.5°	302.7	374.2	510.2	602.0	636.1
80°	224.5	292.5	411.6	476.2	503.4
82.5°	156.5	214.3	302.7	336.7	343.5
85°	98.6	136.1	183.7	204.1	200.7
87.5°	44.2	54.4	68.0	74.8	71.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)