

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: P388486

Luminaire Tested: **22CZ2-80VHE-UNV-L930-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: P388486  
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-L930-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6593.7 lumens  
Efficiency: N/A  
Efficacy: 111.6 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

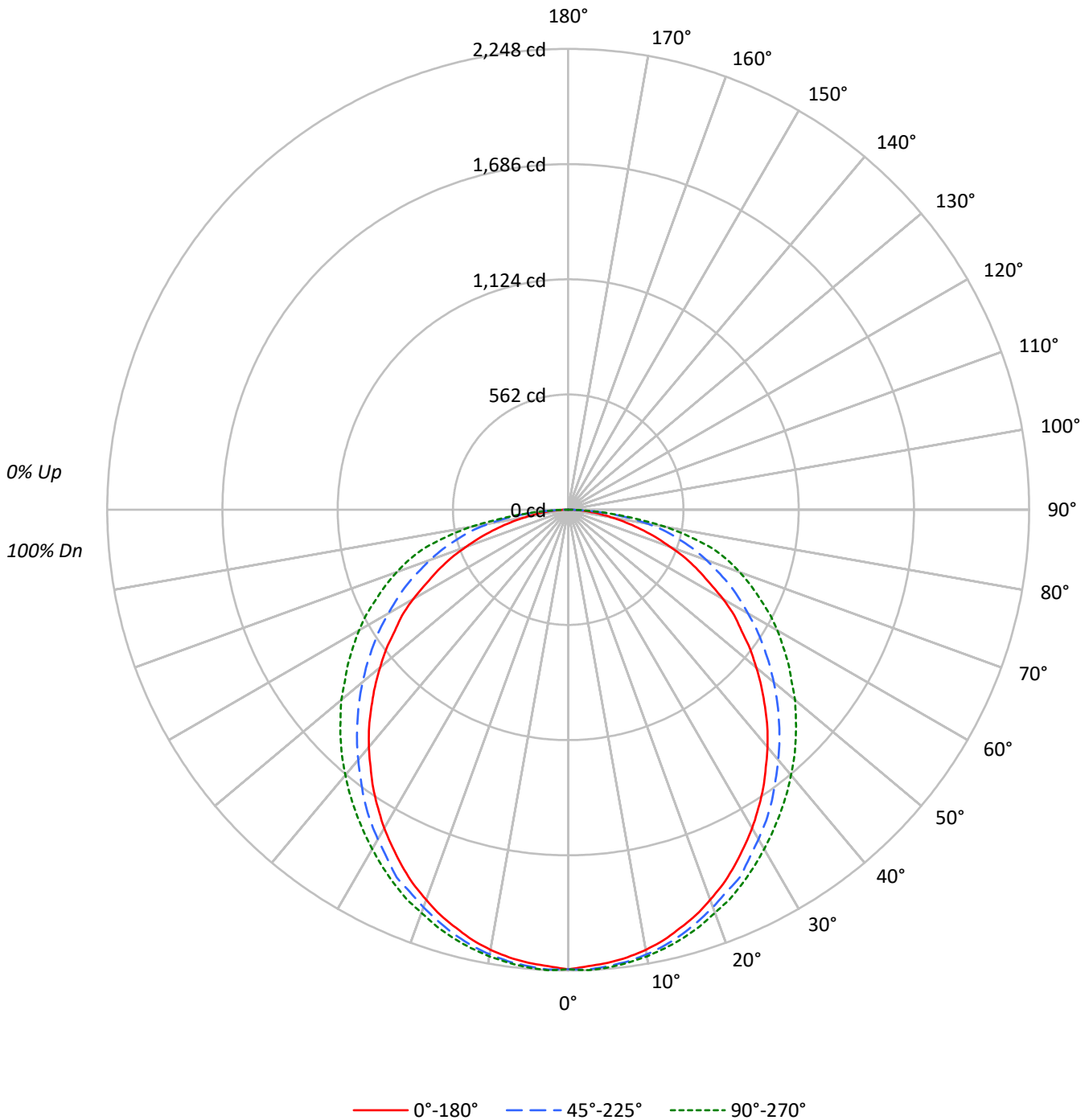
Input Watts (W): 59.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P388486

CATALOG NUMBER: 22CZ2-80VHE-UNV-L930-CD1-SWPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P388486

CATALOG NUMBER: 22CZ2-80VHE-UNV-L930-CD1-SWPD1-U

**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°	6033	6033	6033
5°	5995	6039	6056
10°	5958	6020	6046
15°	5884	5975	6029
20°	5798	5909	5993
25°	5693	5877	5973
30°	5575	5767	5938
35°	5447	5692	5926
40°	5311	5596	5938
45°	5161	5532	5976
50°	5012	5474	6044
55°	4841	5449	6150
60°	4697	5448	6339
65°	4462	5536	6570
70°	4161	5641	6995
75°	3812	5836	7557
80°	3318	6084	7442
85°	2905	5409	5910



TEST NUMBER: P388486

CATALOG NUMBER: 22CZ2-80VHE-UNV-L930-CD1-SWPD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	212.0	3.2
10°-20°	603.9	9.2
20°-30°	906.6	13.7
30°-40°	1083.3	16.4
40°-50°	1126.5	17.1
50°-60°	1044.1	15.8
60°-70°	856.4	13.0
70°-80°	578.9	8.8
80°-90°	181.9	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°	1722.6	26.1
0°-40°	2805.9	42.6
0°-60°	4976.5	75.5
0°-90°	6593.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6593.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2242	2242	2242	2242	2242	
5°	2219	2222	2236	2239	2242	211
15°	2112	2122	2145	2158	2164	596
25°	1918	1934	1979	2002	2012	883
35°	1658	1681	1733	1784	1804	1036
45°	1356	1382	1454	1538	1570	1047
55°	1032	1064	1162	1265	1311	927
65°	701	740	870	983	1032	693
75°	367	428	561	675	727	389
85°	94	130	175	195	191	107
90°	0	0	0	0	0	



TEST NUMBER: P388486

CATALOG NUMBER: 22CZ2-80VHE-UNV-L930-CD1-SWPD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2242.0	2242.0	2242.0	2242.0	2242.0
2.5°	2229.0	2235.5	2245.2	2248.5	2248.5
5°	2219.3	2222.5	2235.5	2238.7	2242.0
7.5°	2203.0	2209.5	2222.5	2225.8	2229.0
10°	2180.3	2186.8	2203.0	2209.5	2212.8
12.5°	2151.1	2157.6	2177.1	2186.8	2190.1
15°	2112.2	2121.9	2144.6	2157.6	2164.1
17.5°	2073.3	2083.0	2105.7	2125.2	2131.7
20°	2024.6	2047.3	2063.5	2089.5	2092.7
22.5°	1975.9	1988.9	2018.1	2044.1	2057.0
25°	1917.5	1933.7	1979.2	2001.9	2011.6
27.5°	1855.9	1878.6	1914.3	1950.0	1962.9
30°	1794.2	1810.5	1855.9	1898.1	1911.0
32.5°	1726.1	1748.8	1797.5	1839.7	1859.1
35°	1658.0	1680.7	1732.6	1784.5	1804.0
37.5°	1583.3	1609.3	1661.2	1722.9	1748.8
40°	1512.0	1531.4	1593.1	1667.7	1690.4
42.5°	1437.3	1460.0	1524.9	1606.0	1632.0
45°	1356.2	1382.2	1453.6	1537.9	1570.4
47.5°	1278.4	1304.3	1382.2	1466.5	1505.5
50°	1197.2	1229.7	1307.6	1404.9	1443.8
52.5°	1119.4	1148.6	1236.2	1336.8	1372.4
55°	1031.8	1064.2	1161.5	1265.4	1310.8
57.5°	960.4	983.1	1090.2	1197.2	1242.7
60°	872.8	902.0	1012.3	1125.9	1177.8
62.5°	778.7	827.4	940.9	1057.7	1109.6
65°	700.8	739.8	869.5	983.1	1031.8
67.5°	619.7	661.9	788.4	908.5	963.6
70°	528.9	584.0	717.0	837.1	889.0
72.5°	447.7	506.1	642.4	759.2	814.4
75°	366.6	428.3	561.3	674.9	726.8
77.5°	288.8	356.9	486.7	574.3	606.7
80°	214.1	279.0	392.6	454.2	480.2
82.5°	149.2	204.4	288.8	321.2	327.7
85°	94.1	129.8	175.2	194.7	191.4
87.5°	42.2	51.9	64.9	71.4	68.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)