

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: P388487

Luminaire Tested: **22CZ2-80VHE-UNV-L930-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: P388487
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-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

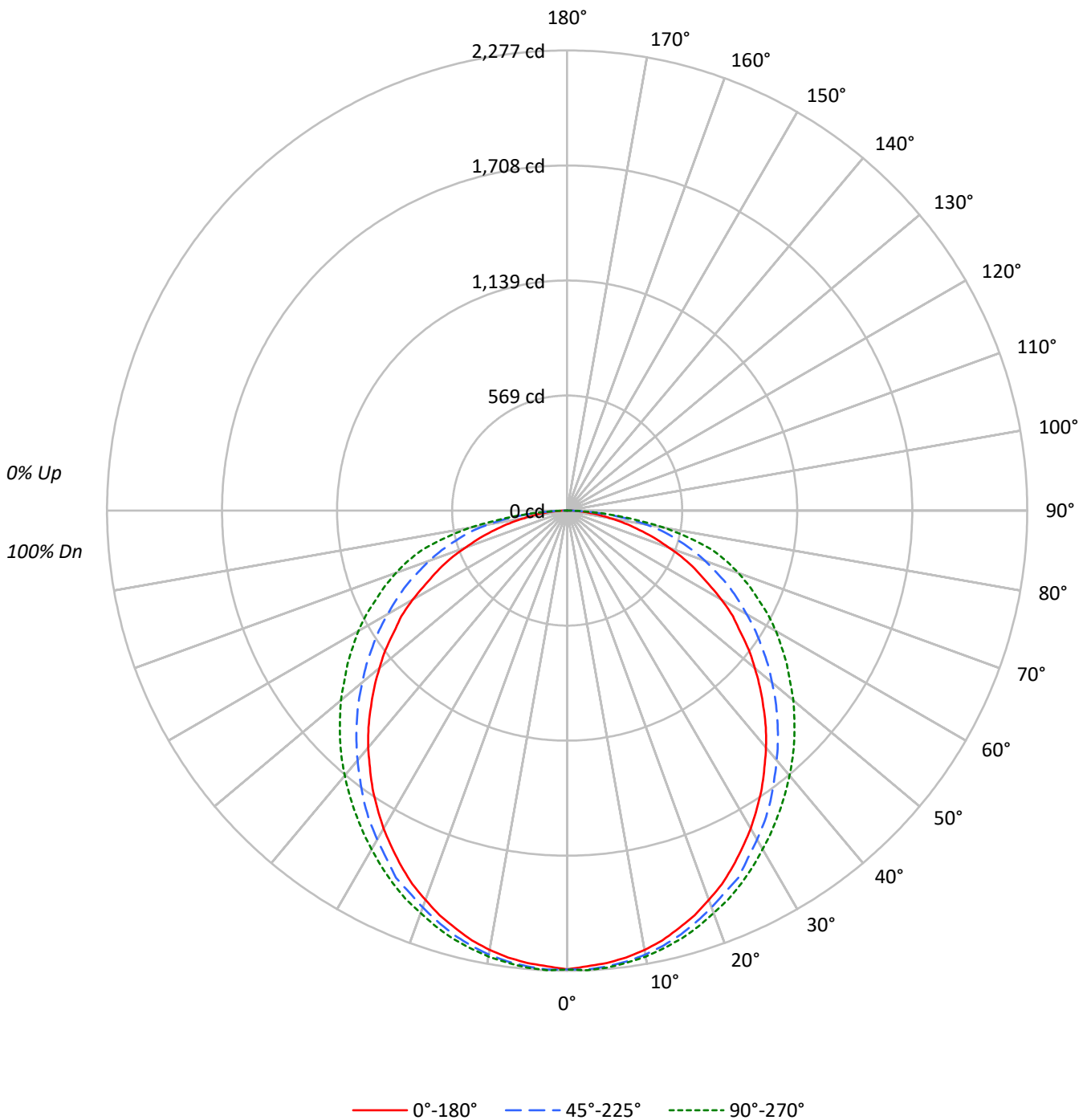
Lumens per Lamp: N/A
Luminaire Lumens: 6676.5 lumens
Efficiency: N/A
Efficacy: 113.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	6109	6109	6109
5°	6070	6115	6132
10°	6033	6095	6122
15°	5958	6050	6105
20°	5871	5983	6068
25°	5765	5950	6048
30°	5645	5839	6013
35°	5515	5763	6001
40°	5378	5667	6013
45°	5226	5601	6051
50°	5075	5543	6121
55°	4901	5518	6227
60°	4756	5517	6419
65°	4518	5606	6652
70°	4213	5712	7083
75°	3859	5910	7651
80°	3360	6160	7535
85°	2942	5477	5984



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.7	3.2
10°-20°	611.5	9.2
20°-30°	918.0	13.7
30°-40°	1096.9	16.4
40°-50°	1140.6	17.1
50°-60°	1057.2	15.8
60°-70°	867.1	13.0
70°-80°	586.2	8.8
80°-90°	184.2	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°	1744.2	26.1
0°-40°	2841.1	42.6
0°-60°	5038.9	75.5
0°-90°	6676.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6676.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2270	2270	2270	2270	2270	
5°	2247	2250	2264	2267	2270	213
15°	2139	2149	2172	2185	2191	603
25°	1942	1958	2004	2027	2037	894
35°	1679	1702	1754	1807	1827	1049
45°	1373	1400	1472	1557	1590	1060
55°	1045	1078	1176	1281	1327	939
65°	710	749	880	995	1045	701
75°	371	434	568	683	736	394
85°	95	131	177	197	194	108
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2270.1	2270.1	2270.1	2270.1	2270.1
2.5°	2257.0	2263.6	2273.4	2276.7	2276.7
5°	2247.1	2250.4	2263.6	2266.8	2270.1
7.5°	2230.7	2237.3	2250.4	2253.7	2257.0
10°	2207.7	2214.3	2230.7	2237.3	2240.6
12.5°	2178.1	2184.7	2204.4	2214.3	2217.6
15°	2138.7	2148.6	2171.6	2184.7	2191.3
17.5°	2099.3	2109.2	2132.2	2151.9	2158.4
20°	2050.0	2073.0	2089.4	2115.7	2119.0
22.5°	2000.7	2013.9	2043.4	2069.7	2082.9
25°	1941.6	1958.0	2004.0	2027.0	2036.9
27.5°	1879.2	1902.2	1938.3	1974.5	1987.6
30°	1816.8	1833.2	1879.2	1921.9	1935.0
32.5°	1747.8	1770.8	1820.0	1862.8	1882.5
35°	1678.8	1701.8	1754.3	1806.9	1826.6
37.5°	1603.2	1629.5	1682.1	1744.5	1770.8
40°	1530.9	1550.7	1613.1	1688.6	1711.6
42.5°	1455.4	1478.4	1544.1	1626.2	1652.5
45°	1373.2	1399.5	1471.8	1557.2	1590.1
47.5°	1294.4	1320.7	1399.5	1484.9	1524.4
50°	1212.3	1245.1	1324.0	1422.5	1462.0
52.5°	1133.4	1163.0	1251.7	1353.5	1389.7
55°	1044.7	1077.6	1176.1	1281.3	1327.3
57.5°	972.4	995.4	1103.9	1212.3	1258.3
60°	883.7	913.3	1025.0	1140.0	1192.6
62.5°	788.5	837.7	952.7	1071.0	1123.6
65°	709.6	749.0	880.5	995.4	1044.7
67.5°	627.5	670.2	798.3	919.9	975.7
70°	535.5	591.4	726.0	847.6	900.2
72.5°	453.4	512.5	650.5	768.8	824.6
75°	371.2	433.7	568.4	683.3	735.9
77.5°	292.4	361.4	492.8	581.5	614.3
80°	216.8	282.5	397.5	459.9	486.2
82.5°	151.1	207.0	292.4	325.2	331.8
85°	95.3	131.4	177.4	197.1	193.8
87.5°	42.7	52.6	65.7	72.3	69.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)