

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: P388202

Luminaire Tested: **22CZ2-80VHE-SQR-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: P388202
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-L930-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6412.0 lumens
Efficiency: N/A
Efficacy: 108.5 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

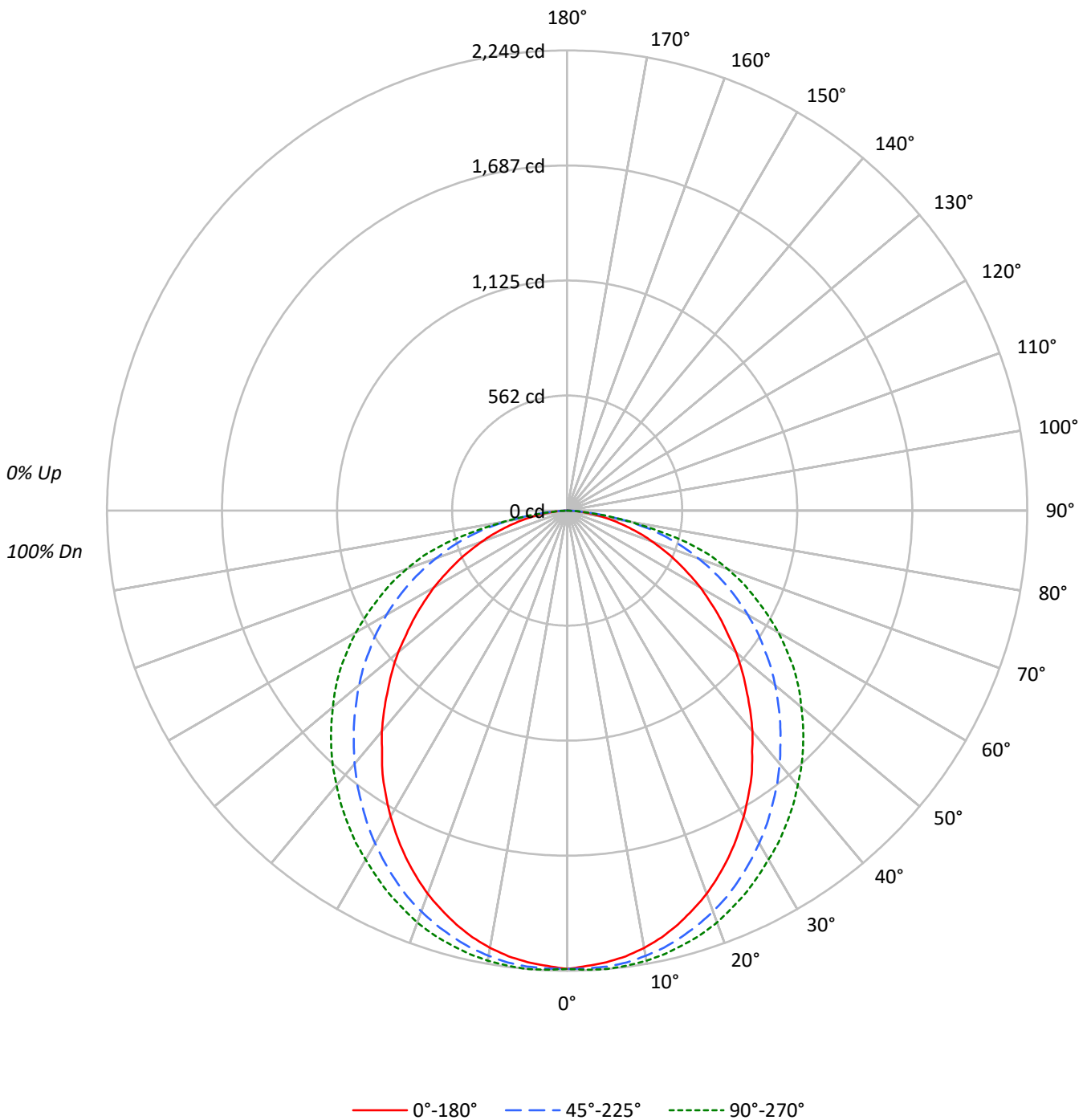
Input Watts (W): 59.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6028	6028	6028
5°	5985	6042	6075
10°	5929	6037	6104
15°	5833	6011	6121
20°	5708	5970	6135
25°	5548	5910	6127
30°	5362	5835	6118
35°	5169	5749	6138
40°	4950	5677	6158
45°	4714	5606	6208
50°	4510	5555	6256
55°	4269	5511	6354
60°	4046	5487	6421
65°	3778	5445	6472
70°	3472	5364	6561
75°	3133	5220	6329
80°	2689	4621	4764
85°	2161	2726	2161



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.3	3.3
10°-20°	607.1	9.5
20°-30°	911.9	14.2
30°-40°	1087.5	17.0
40°-50°	1124.4	17.5
50°-60°	1033.7	16.1
60°-70°	823.0	12.8
70°-80°	502.8	7.8
80°-90°	109.3	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°	1731.3	27.0
0°-40°	2818.8	44.0
0°-60°	4977.0	77.6
0°-90°	6412.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6412.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2240	2240	2240	2240	2240	
5°	2216	2222	2237	2246	2249	210
15°	2094	2118	2158	2188	2197	590
25°	1869	1914	1990	2045	2063	860
35°	1573	1640	1750	1841	1869	982
45°	1239	1327	1473	1592	1631	958
55°	910	1010	1175	1309	1354	814
65°	593	694	855	974	1016	588
75°	301	390	502	590	609	321
85°	70	85	88	76	70	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2239.9	2239.9	2239.9	2239.9	2239.9
2.5°	2227.7	2230.7	2239.9	2246.0	2246.0
5°	2215.5	2221.6	2236.8	2246.0	2249.0
7.5°	2197.3	2206.4	2227.7	2239.9	2242.9
10°	2169.9	2182.0	2209.4	2227.7	2233.8
12.5°	2136.4	2154.7	2188.1	2212.5	2218.6
15°	2093.8	2118.1	2157.7	2188.1	2197.3
17.5°	2045.1	2075.5	2124.2	2160.7	2172.9
20°	1993.4	2023.8	2084.7	2127.3	2142.5
22.5°	1932.5	1972.1	2042.1	2090.7	2102.9
25°	1868.6	1914.2	1990.3	2045.1	2063.4
27.5°	1798.6	1853.4	1935.5	2002.5	2017.7
30°	1725.5	1783.4	1877.7	1950.8	1969.0
32.5°	1649.5	1716.4	1816.8	1899.0	1923.4
35°	1573.4	1640.3	1749.9	1841.2	1868.6
37.5°	1485.1	1564.3	1686.0	1780.3	1813.8
40°	1409.0	1485.1	1616.0	1719.5	1752.9
42.5°	1323.8	1406.0	1543.0	1655.6	1695.1
45°	1238.6	1326.9	1473.0	1591.6	1631.2
47.5°	1159.5	1247.8	1399.9	1524.7	1564.3
50°	1077.3	1168.6	1326.9	1454.7	1494.3
52.5°	989.1	1089.5	1253.8	1381.7	1427.3
55°	909.9	1010.4	1174.7	1308.6	1354.3
57.5°	827.8	931.2	1101.7	1229.5	1272.1
60°	751.7	852.1	1019.5	1144.3	1193.0
62.5°	669.5	773.0	937.3	1059.1	1104.7
65°	593.4	693.9	855.2	973.9	1016.5
67.5°	517.4	617.8	770.0	882.6	931.2
70°	441.3	541.7	681.7	791.3	833.9
72.5°	374.3	462.6	596.5	696.9	736.5
75°	301.3	389.5	502.1	590.4	608.7
77.5°	234.3	313.5	407.8	447.4	453.5
80°	173.5	234.3	298.2	307.4	307.4
82.5°	115.6	161.3	185.6	188.7	185.6
85°	70.0	85.2	88.3	76.1	70.0
87.5°	24.3	24.3	15.2	9.1	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)