

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: P388201

Luminaire Tested: **22CZ2-80VHE-SQR-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: P388201
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-SWPD1-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: 6332.4 lumens
Efficiency: N/A
Efficacy: 107.1 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

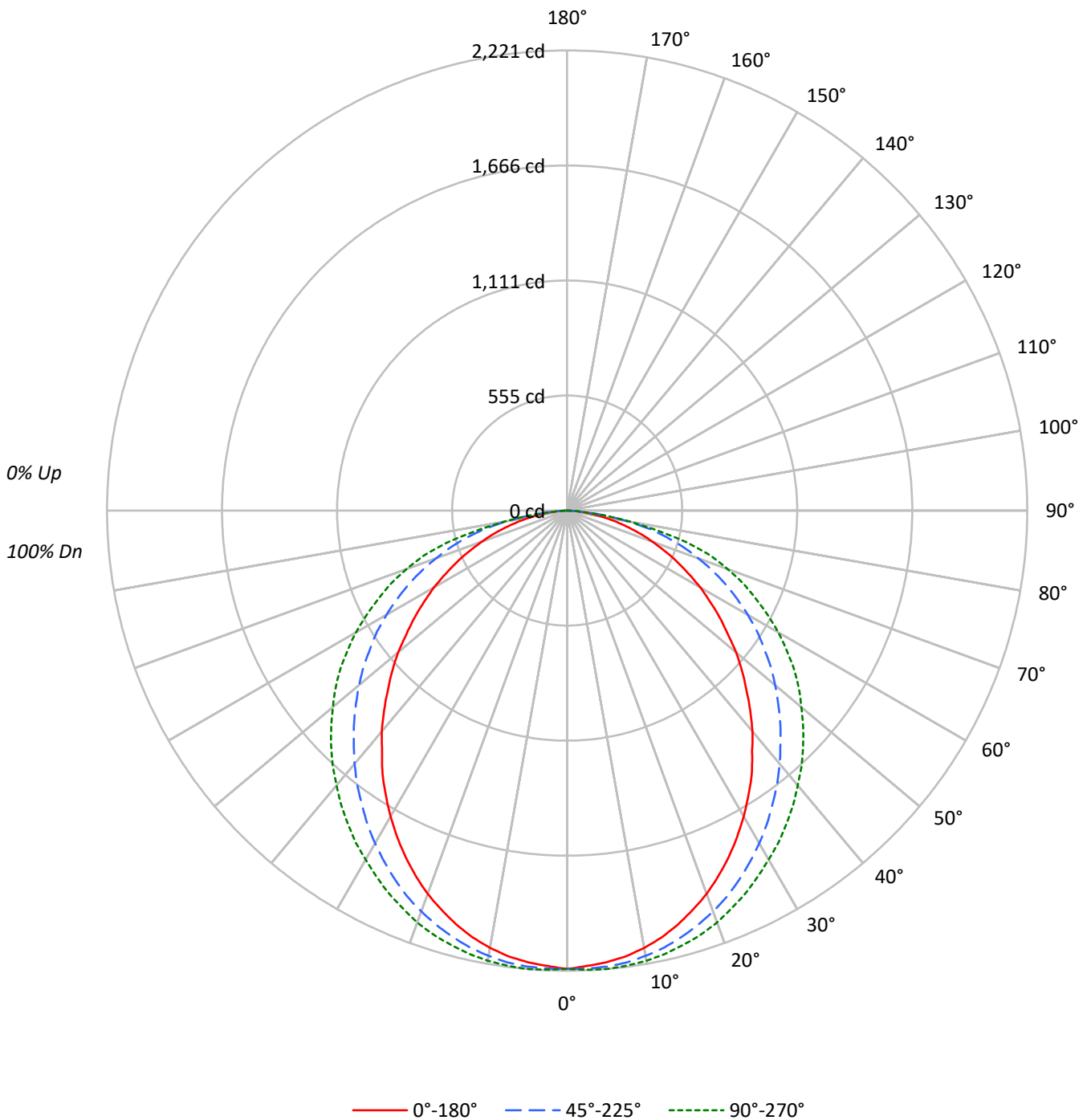
Input Watts (W): 59.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5953	5953	5953
5°	5910	5967	6000
10°	5855	5962	6028
15°	5761	5936	6045
20°	5637	5896	6059
25°	5479	5836	6050
30°	5295	5762	6042
35°	5105	5677	6062
40°	4888	5606	6081
45°	4655	5536	6131
50°	4454	5486	6178
55°	4216	5443	6275
60°	3996	5419	6341
65°	3732	5378	6392
70°	3429	5297	6479
75°	3093	5156	6250
80°	2655	4564	4705
85°	2133	2692	2133



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.7	3.3
10°-20°	599.6	9.5
20°-30°	900.5	14.2
30°-40°	1074.0	17.0
40°-50°	1110.4	17.5
50°-60°	1020.9	16.1
60°-70°	812.7	12.8
70°-80°	496.5	7.8
80°-90°	107.9	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°	1709.8	27.0
0°-40°	2783.8	44.0
0°-60°	4915.2	77.6
0°-90°	6332.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6332.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2212	2212	2212	2212	2212	
5°	2188	2194	2209	2218	2221	207
15°	2068	2092	2131	2161	2170	582
25°	1845	1890	1966	2020	2038	849
35°	1554	1620	1728	1818	1845	969
45°	1223	1310	1455	1572	1611	946
55°	899	998	1160	1292	1338	804
65°	586	685	845	962	1004	581
75°	298	385	496	583	601	317
85°	69	84	87	75	69	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2212.1	2212.1	2212.1	2212.1	2212.1
2.5°	2200.0	2203.0	2212.1	2218.1	2218.1
5°	2188.0	2194.0	2209.1	2218.1	2221.1
7.5°	2170.0	2179.0	2200.0	2212.1	2215.1
10°	2142.9	2155.0	2182.0	2200.0	2206.0
12.5°	2109.9	2127.9	2161.0	2185.0	2191.0
15°	2067.8	2091.8	2130.9	2161.0	2170.0
17.5°	2019.7	2049.8	2097.9	2133.9	2145.9
20°	1968.6	1998.7	2058.8	2100.9	2115.9
22.5°	1908.5	1947.6	2016.7	2064.8	2076.8
25°	1845.4	1890.5	1965.6	2019.7	2037.7
27.5°	1776.3	1830.4	1911.5	1977.6	1992.7
30°	1704.1	1761.2	1854.4	1926.5	1944.6
32.5°	1629.0	1695.1	1794.3	1875.4	1899.5
35°	1553.9	1620.0	1728.2	1818.3	1845.4
37.5°	1466.7	1544.8	1665.1	1758.2	1791.3
40°	1391.6	1466.7	1595.9	1698.1	1731.2
42.5°	1307.4	1388.5	1523.8	1635.0	1674.1
45°	1223.2	1310.4	1454.7	1571.9	1611.0
47.5°	1145.1	1232.3	1382.5	1505.8	1544.8
50°	1064.0	1154.1	1310.4	1436.6	1475.7
52.5°	976.8	1076.0	1238.3	1364.5	1409.6
55°	898.6	997.8	1160.1	1292.4	1337.5
57.5°	817.5	919.7	1088.0	1214.2	1256.3
60°	742.4	841.5	1006.8	1130.1	1178.2
62.5°	661.2	763.4	925.7	1045.9	1091.0
65°	586.1	685.3	844.6	961.8	1003.8
67.5°	510.9	610.1	760.4	871.6	919.7
70°	435.8	535.0	673.2	781.4	823.5
72.5°	369.7	456.8	589.1	688.3	727.3
75°	297.5	384.7	495.9	583.1	601.1
77.5°	231.4	309.6	402.7	441.8	447.8
80°	171.3	231.4	294.5	303.6	303.6
82.5°	114.2	159.3	183.3	186.3	183.3
85°	69.1	84.2	87.2	75.1	69.1
87.5°	24.0	24.0	15.0	9.0	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)