

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: P388805

Luminaire Tested: **24CZ2-50VHE-SQR-UNV-L935-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: P388805
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50VHE-SQR-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4111.9 lumens
Efficiency: N/A
Efficacy: 125.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

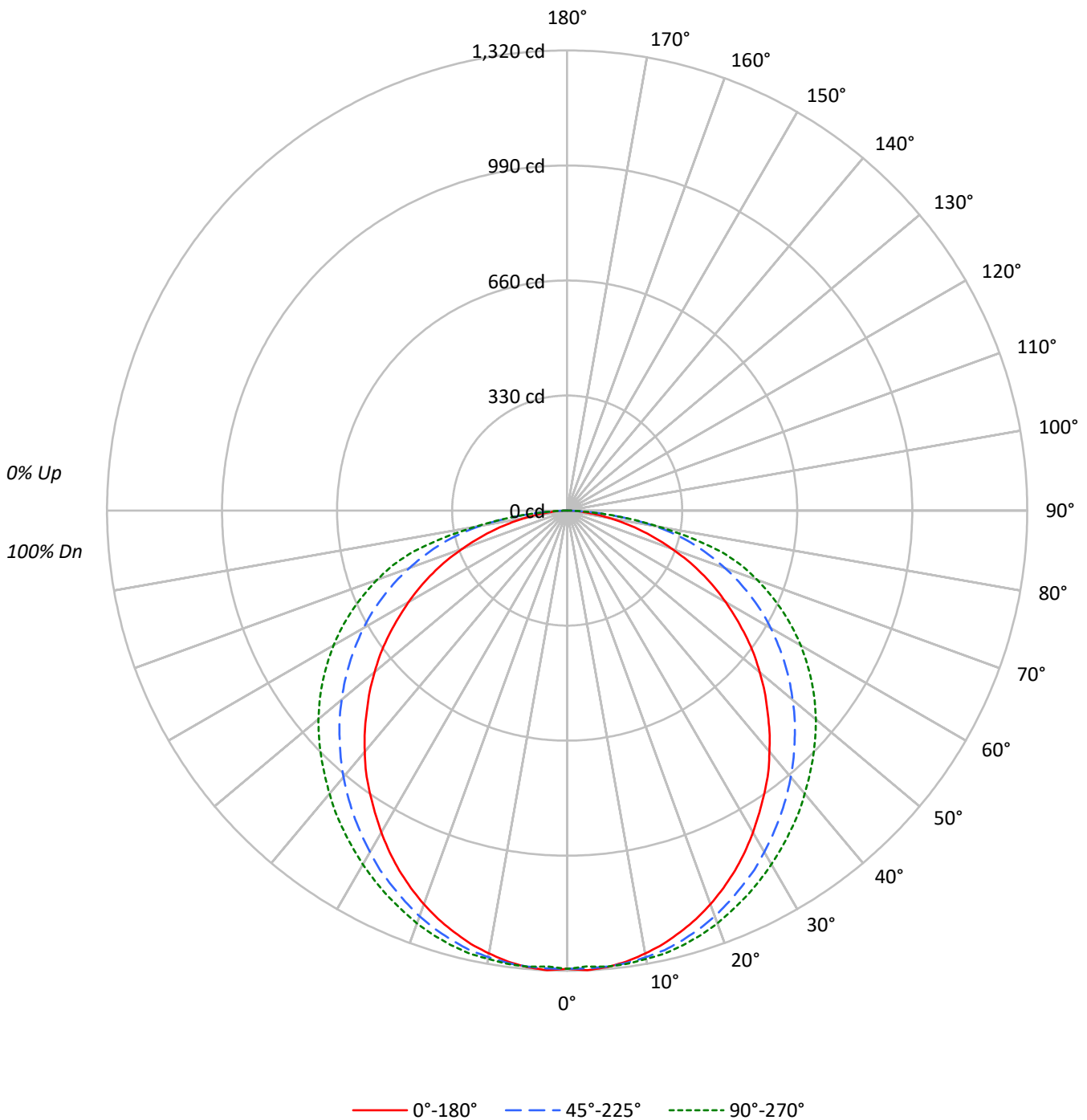
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89		92	89	87		89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51		62	55	50		60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44		55	49	43		54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34		45	39	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		42	35	30		40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27		38	32	27		37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24		36	29	24		35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1769	1769	1769
5°	1775	1773	1773
10°	1762	1777	1785
15°	1744	1778	1797
20°	1721	1773	1804
25°	1691	1764	1810
30°	1656	1757	1821
35°	1621	1753	1838
40°	1586	1753	1863
45°	1545	1757	1899
50°	1509	1768	1950
55°	1465	1787	2010
60°	1414	1816	2083
65°	1353	1850	2170
70°	1255	1896	2281
75°	1136	1962	2386
80°	958	1967	2052
85°	733	1488	1488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.8	3.0
10°-20°	359.0	8.7
20°-30°	545.2	13.3
30°-40°	663.2	16.1
40°-50°	706.1	17.2
50°-60°	672.5	16.4
60°-70°	562.4	13.7
70°-80°	375.0	9.1
80°-90°	103.8	2.5
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°	1029.0	25.0
0°-40°	1692.1	41.2
0°-60°	3070.8	74.7
0°-90°	4111.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4111.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1314	1314	1314	1314	1314	
5°	1314	1306	1313	1313	1313	125
15°	1252	1255	1276	1286	1290	353
25°	1139	1154	1188	1208	1219	525
35°	987	1016	1067	1102	1119	618
45°	812	855	923	975	998	628
55°	625	679	762	828	857	558
65°	425	488	581	653	682	420
75°	219	288	378	441	459	232
85°	48	88	96	95	96	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1314.4	1314.4	1314.4	1314.4	1314.4
2.5°	1319.8	1310.3	1314.4	1314.4	1308.9
5°	1314.4	1306.2	1313.0	1313.0	1313.0
7.5°	1304.9	1298.1	1308.9	1311.6	1311.6
10°	1289.9	1287.2	1300.8	1304.9	1306.2
12.5°	1273.6	1272.3	1291.3	1296.7	1300.8
15°	1251.9	1254.6	1276.3	1285.8	1289.9
17.5°	1228.8	1234.3	1258.7	1272.3	1276.3
20°	1201.7	1209.8	1238.3	1251.9	1260.1
22.5°	1171.8	1184.0	1213.9	1230.2	1239.7
25°	1139.2	1154.1	1188.1	1208.5	1219.3
27.5°	1103.9	1122.9	1162.3	1185.4	1196.2
30°	1065.9	1087.6	1131.1	1158.2	1171.8
32.5°	1026.5	1052.3	1099.8	1129.7	1146.0
35°	987.1	1015.6	1067.2	1102.5	1118.8
37.5°	947.8	976.3	1033.3	1071.3	1091.7
40°	902.9	936.9	998.0	1040.1	1060.5
42.5°	859.5	896.2	961.3	1007.5	1029.2
45°	812.0	855.4	923.3	974.9	998.0
47.5°	768.5	812.0	885.3	939.6	965.4
50°	721.0	767.2	844.6	904.3	931.5
52.5°	674.8	722.4	803.8	867.6	894.8
55°	624.6	678.9	761.7	828.3	856.8
57.5°	574.4	632.7	718.3	787.5	816.0
60°	525.5	585.2	674.8	744.1	774.0
62.5°	476.6	536.3	630.0	700.6	729.1
65°	425.0	487.5	581.1	653.1	681.6
67.5°	373.4	438.6	532.3	604.2	631.4
70°	319.1	388.3	482.0	552.6	579.8
72.5°	268.8	338.1	430.4	499.7	525.5
75°	218.6	287.9	377.5	441.3	458.9
77.5°	169.7	239.0	319.1	361.2	365.3
80°	123.6	188.7	253.9	266.1	264.8
82.5°	82.8	141.2	175.2	176.5	180.6
85°	47.5	88.3	96.4	95.0	96.4
87.5°	19.0	31.2	27.2	20.4	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)