

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: P388739

Luminaire Tested: **24CZ2-45VHE-SQR-UNV-L950-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: P388739
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: 24CZ2-45VHE-SQR-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3969.9 lumens
Efficiency: N/A
Efficacy: 134.1 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

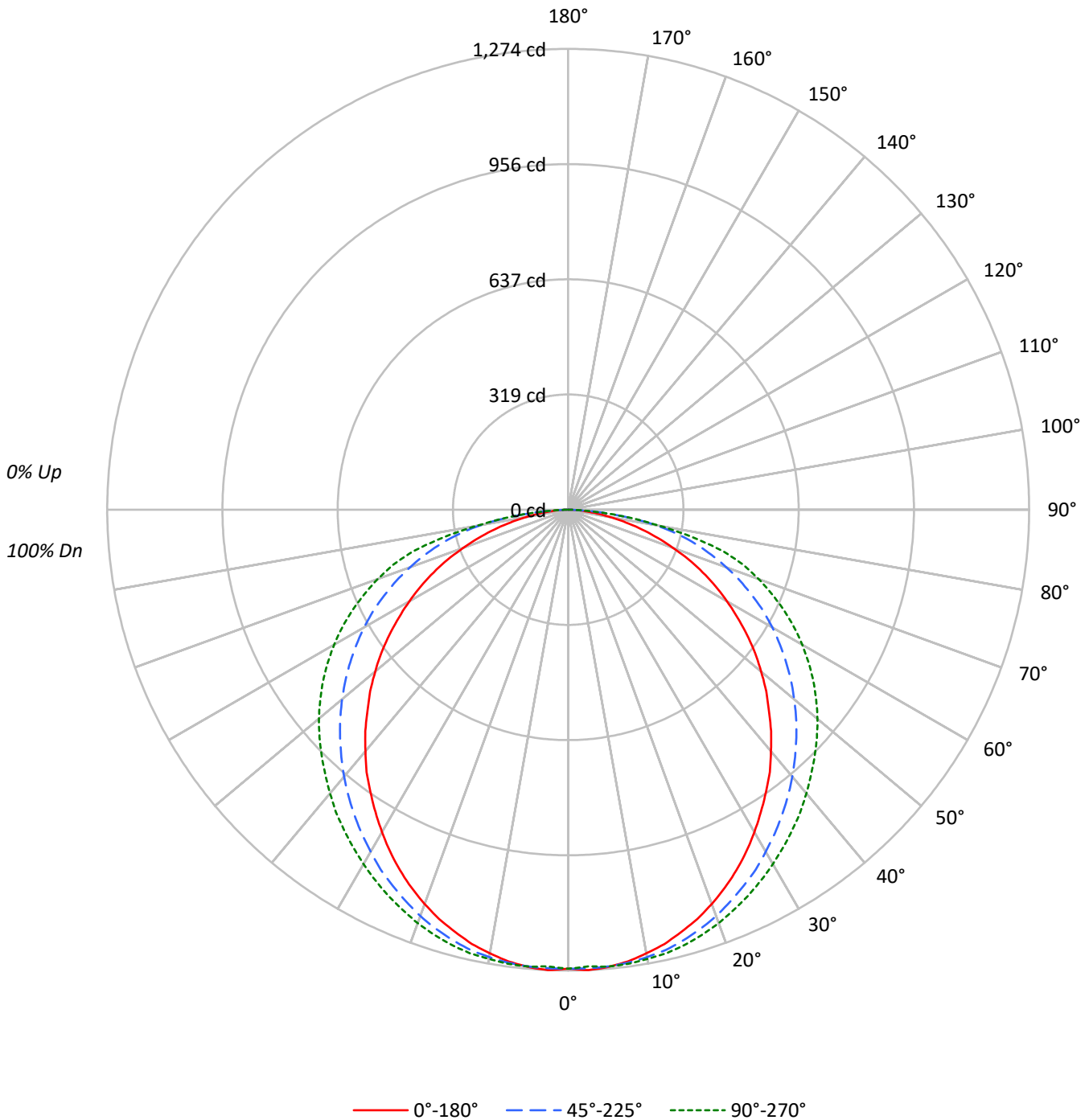
Input Watts (W): 29.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1707	1707	1707
5°	1714	1712	1712
10°	1702	1716	1723
15°	1684	1717	1735
20°	1661	1712	1742
25°	1633	1703	1748
30°	1599	1697	1758
35°	1565	1692	1774
40°	1531	1692	1798
45°	1492	1696	1833
50°	1457	1707	1882
55°	1415	1725	1940
60°	1365	1753	2011
65°	1306	1786	2095
70°	1212	1831	2202
75°	1097	1894	2303
80°	924	1899	1980
85°	709	1437	1437



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.5	3.0
10°-20°	346.6	8.7
20°-30°	526.4	13.3
30°-40°	640.3	16.1
40°-50°	681.7	17.2
50°-60°	649.3	16.4
60°-70°	543.0	13.7
70°-80°	362.0	9.1
80°-90°	100.2	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°	993.4	25.0
0°-40°	1633.7	41.2
0°-60°	2964.7	74.7
0°-90°	3969.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3969.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1269	1269	1269	1269	1269	
5°	1269	1261	1268	1268	1268	120
15°	1209	1211	1232	1241	1245	341
25°	1100	1114	1147	1167	1177	506
35°	953	981	1030	1064	1080	596
45°	784	826	891	941	964	606
55°	603	656	735	800	827	539
65°	410	471	561	631	658	405
75°	211	278	364	426	443	224
85°	46	85	93	92	93	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1269.0	1269.0	1269.0	1269.0	1269.0
2.5°	1274.2	1265.0	1269.0	1269.0	1263.7
5°	1269.0	1261.1	1267.7	1267.7	1267.7
7.5°	1259.8	1253.2	1263.7	1266.4	1266.4
10°	1245.4	1242.8	1255.9	1259.8	1261.1
12.5°	1229.6	1228.3	1246.7	1251.9	1255.9
15°	1208.7	1211.3	1232.3	1241.4	1245.4
17.5°	1186.4	1191.6	1215.2	1228.3	1232.3
20°	1160.2	1168.0	1195.6	1208.7	1216.5
22.5°	1131.3	1143.1	1172.0	1187.7	1196.9
25°	1099.9	1114.3	1147.1	1166.7	1177.2
27.5°	1065.8	1084.1	1122.1	1144.4	1154.9
30°	1029.1	1050.0	1092.0	1118.2	1131.3
32.5°	991.1	1016.0	1061.8	1090.7	1106.4
35°	953.0	980.6	1030.4	1064.5	1080.2
37.5°	915.0	942.6	997.6	1034.3	1054.0
40°	871.8	904.5	963.5	1004.2	1023.8
42.5°	829.8	865.2	928.1	972.7	993.7
45°	783.9	825.9	891.4	941.2	963.5
47.5°	742.0	783.9	854.7	907.2	932.1
50°	696.1	740.7	815.4	873.1	899.3
52.5°	651.5	697.4	776.1	837.7	863.9
55°	603.0	655.5	735.4	799.7	827.2
57.5°	554.5	610.9	693.5	760.3	787.9
60°	507.3	565.0	651.5	718.4	747.2
62.5°	460.1	517.8	608.3	676.4	704.0
65°	410.3	470.6	561.1	630.6	658.1
67.5°	360.5	423.4	513.9	583.4	609.6
70°	308.1	374.9	465.4	533.5	559.8
72.5°	259.6	326.4	415.6	482.4	507.3
75°	211.1	277.9	364.4	426.0	443.1
77.5°	163.9	230.7	308.1	348.7	352.6
80°	119.3	182.2	245.1	256.9	255.6
82.5°	80.0	136.3	169.1	170.4	174.4
85°	45.9	85.2	93.1	91.8	93.1
87.5°	18.4	30.2	26.2	19.7	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)