

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: P388806

Luminaire Tested: **24CZ2-50VHE-SQR-UNV-L940-CD1-SDWPD1-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: P388806
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-L940-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4053.4 lumens
Efficiency: N/A
Efficacy: 124.0 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

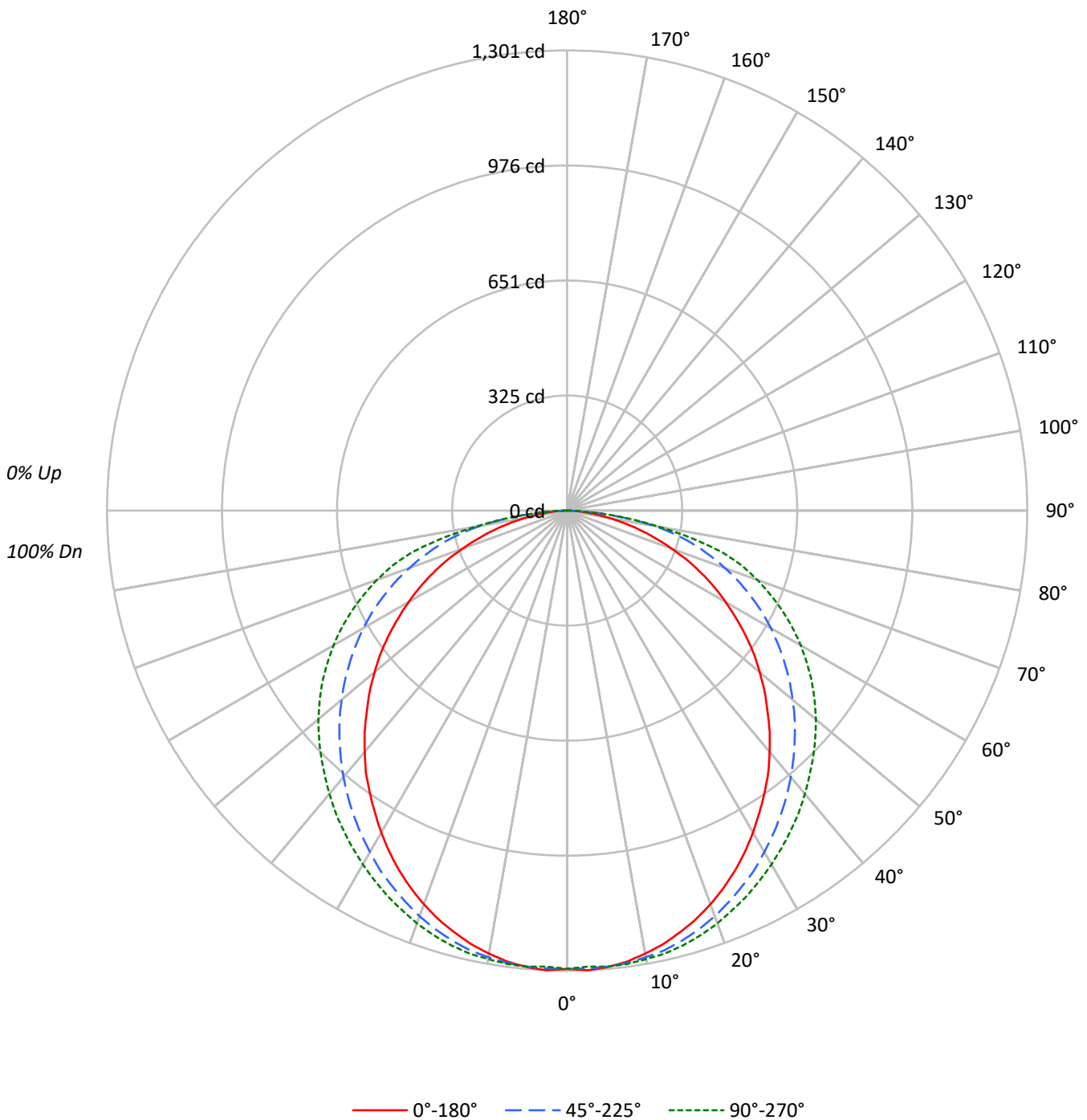
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20																		
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	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°	1743	1743	1743
5°	1750	1748	1748
10°	1737	1752	1759
15°	1719	1753	1771
20°	1696	1748	1778
25°	1667	1739	1784
30°	1632	1732	1795
35°	1598	1728	1812
40°	1563	1728	1836
45°	1523	1732	1872
50°	1488	1743	1922
55°	1444	1761	1981
60°	1394	1790	2053
65°	1334	1824	2139
70°	1237	1869	2248
75°	1120	1934	2352
80°	944	1939	2022
85°	722	1467	1467



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.0	3.0
10°-20°	353.9	8.7
20°-30°	537.5	13.3
30°-40°	653.8	16.1
40°-50°	696.1	17.2
50°-60°	662.9	16.4
60°-70°	554.4	13.7
70°-80°	369.6	9.1
80°-90°	102.3	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°	1014.3	25.0
0°-40°	1668.1	41.2
0°-60°	3027.1	74.7
0°-90°	4053.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4053.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1296	1296	1296	1296	1296	
5°	1296	1288	1294	1294	1294	123
15°	1234	1237	1258	1268	1272	348
25°	1123	1138	1171	1191	1202	517
35°	973	1001	1052	1087	1103	609
45°	800	843	910	961	984	619
55°	616	669	751	816	845	550
65°	419	480	573	644	672	414
75°	216	284	372	435	452	228
85°	47	87	95	94	95	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1295.7	1295.7	1295.7	1295.7	1295.7
2.5°	1301.0	1291.6	1295.7	1295.7	1290.3
5°	1295.7	1287.6	1294.3	1294.3	1294.3
7.5°	1286.3	1279.6	1290.3	1293.0	1293.0
10°	1271.6	1268.9	1282.3	1286.3	1287.6
12.5°	1255.5	1254.2	1272.9	1278.3	1282.3
15°	1234.1	1236.8	1258.2	1267.6	1271.6
17.5°	1211.3	1216.7	1240.8	1254.2	1258.2
20°	1184.6	1192.6	1220.7	1234.1	1242.1
22.5°	1155.1	1167.2	1196.6	1212.7	1222.0
25°	1123.0	1137.7	1171.2	1191.3	1202.0
27.5°	1088.2	1106.9	1145.8	1168.5	1179.2
30°	1050.7	1072.1	1115.0	1141.7	1155.1
32.5°	1011.9	1037.3	1084.2	1113.6	1129.7
35°	973.1	1001.2	1052.1	1086.9	1102.9
37.5°	934.3	962.4	1018.6	1056.1	1076.2
40°	890.1	923.6	983.8	1025.3	1045.4
42.5°	847.3	883.4	947.7	993.2	1014.6
45°	800.4	843.3	910.2	961.0	983.8
47.5°	757.6	800.4	872.7	926.2	951.7
50°	710.7	756.3	832.5	891.4	918.2
52.5°	665.2	712.1	792.4	855.3	882.1
55°	615.7	669.2	750.9	816.5	844.6
57.5°	566.2	623.7	708.1	776.3	804.4
60°	518.0	576.9	665.2	733.5	762.9
62.5°	469.8	528.7	621.1	690.7	718.8
65°	418.9	480.5	572.9	643.8	671.9
67.5°	368.1	432.3	524.7	595.6	622.4
70°	314.5	382.8	475.2	544.8	571.5
72.5°	265.0	333.3	424.3	492.6	518.0
75°	215.5	283.8	372.1	435.0	452.4
77.5°	167.3	235.6	314.5	356.0	360.1
80°	121.8	186.1	250.3	262.3	261.0
82.5°	81.6	139.2	172.7	174.0	178.0
85°	46.8	87.0	95.0	93.7	95.0
87.5°	18.7	30.8	26.8	20.1	20.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)