

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: P388853

Luminaire Tested: **24CZ2-50VHE-UNV-L940-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: P388853
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50VHE-UNV-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

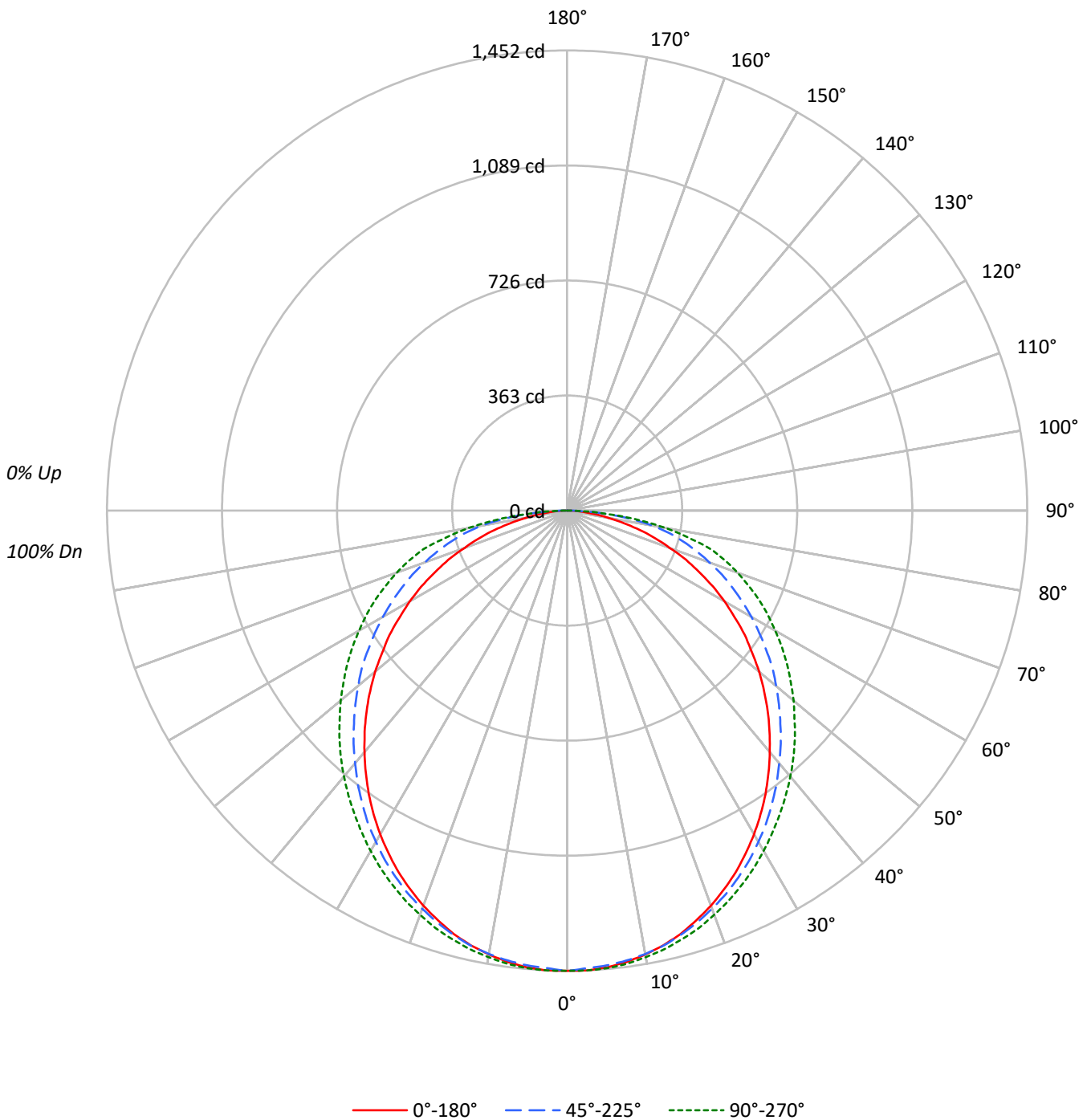
Lumens per Lamp: N/A
Luminaire Lumens: 4325.8 lumens
Efficiency: N/A
Efficacy: 132.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1954	1954	1954
5°	1954	1946	1958
10°	1943	1941	1955
15°	1927	1931	1951
20°	1900	1914	1943
25°	1869	1897	1935
30°	1833	1875	1927
35°	1793	1852	1921
40°	1747	1828	1925
45°	1703	1810	1934
50°	1656	1801	1952
55°	1605	1798	1988
60°	1542	1806	2039
65°	1462	1834	2128
70°	1357	1880	2249
75°	1238	1974	2439
80°	1018	2125	2438
85°	780	1961	2095



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.4	3.2
10°-20°	392.2	9.1
20°-30°	590.1	13.6
30°-40°	707.2	16.3
40°-50°	737.0	17.0
50°-60°	685.7	15.9
60°-70°	564.7	13.1
70°-80°	384.6	8.9
80°-90°	127.0	2.9
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°	1119.6	25.9
0°-40°	1826.8	42.2
0°-60°	3249.5	75.1
0°-90°	4325.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4325.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1452	1452	1452	1452	1452	
5°	1447	1447	1441	1448	1450	137
15°	1383	1384	1386	1399	1400	390
25°	1259	1265	1278	1299	1304	580
35°	1091	1104	1128	1158	1169	682
45°	895	914	951	999	1016	690
55°	684	707	767	827	848	610
65°	459	498	576	644	668	456
75°	238	292	380	448	469	251
85°	50	98	127	136	136	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1452.4	1452.4	1452.4	1452.4	1452.4
2.5°	1452.4	1452.4	1445.2	1452.4	1452.4
5°	1446.6	1446.6	1440.8	1448.0	1449.5
7.5°	1436.5	1437.9	1432.2	1440.8	1442.3
10°	1422.1	1423.5	1420.6	1429.3	1430.7
12.5°	1404.7	1406.2	1406.2	1416.3	1417.7
15°	1383.1	1384.5	1386.0	1399.0	1400.4
17.5°	1355.6	1360.0	1362.9	1378.7	1381.6
20°	1326.8	1331.1	1336.9	1354.2	1357.1
22.5°	1293.6	1299.3	1309.4	1328.2	1332.5
25°	1258.9	1264.7	1277.7	1299.3	1303.7
27.5°	1219.9	1228.6	1244.5	1267.6	1273.4
30°	1179.5	1188.2	1206.9	1231.5	1240.1
32.5°	1136.2	1147.7	1169.4	1196.8	1205.5
35°	1091.4	1104.4	1127.5	1157.9	1169.4
37.5°	1043.8	1058.2	1085.7	1118.9	1133.3
40°	994.7	1012.0	1040.9	1079.9	1095.8
42.5°	945.6	961.5	997.6	1039.5	1056.8
45°	895.1	913.9	951.4	999.0	1016.4
47.5°	843.1	861.9	906.6	957.2	973.1
50°	791.2	809.9	860.5	913.9	932.6
52.5°	734.8	759.4	817.1	870.6	889.3
55°	684.3	707.4	766.6	827.2	847.5
57.5°	626.6	654.0	719.0	782.5	804.1
60°	573.2	602.0	671.3	736.3	757.9
62.5°	518.3	550.1	623.7	690.1	714.6
65°	459.1	498.1	576.0	643.9	668.4
67.5°	405.7	446.1	528.4	597.7	619.4
70°	345.0	394.1	477.9	547.2	571.7
72.5°	293.1	342.2	430.2	498.1	522.6
75°	238.2	291.6	379.7	447.6	469.2
77.5°	183.4	242.5	330.6	382.6	389.8
80°	131.4	193.5	274.3	304.6	314.7
82.5°	92.4	148.7	202.1	222.3	228.1
85°	50.5	98.2	127.0	135.7	135.7
87.5°	21.7	41.9	50.5	52.0	53.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)