

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: P388876

Luminaire Tested: **24CZ2-55VHE-UNV-L940-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: P388876
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: 24CZ2-55VHE-UNV-L940-CD1-SWPD1-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: 4699.0 lumens
Efficiency: N/A
Efficacy: 130.2 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

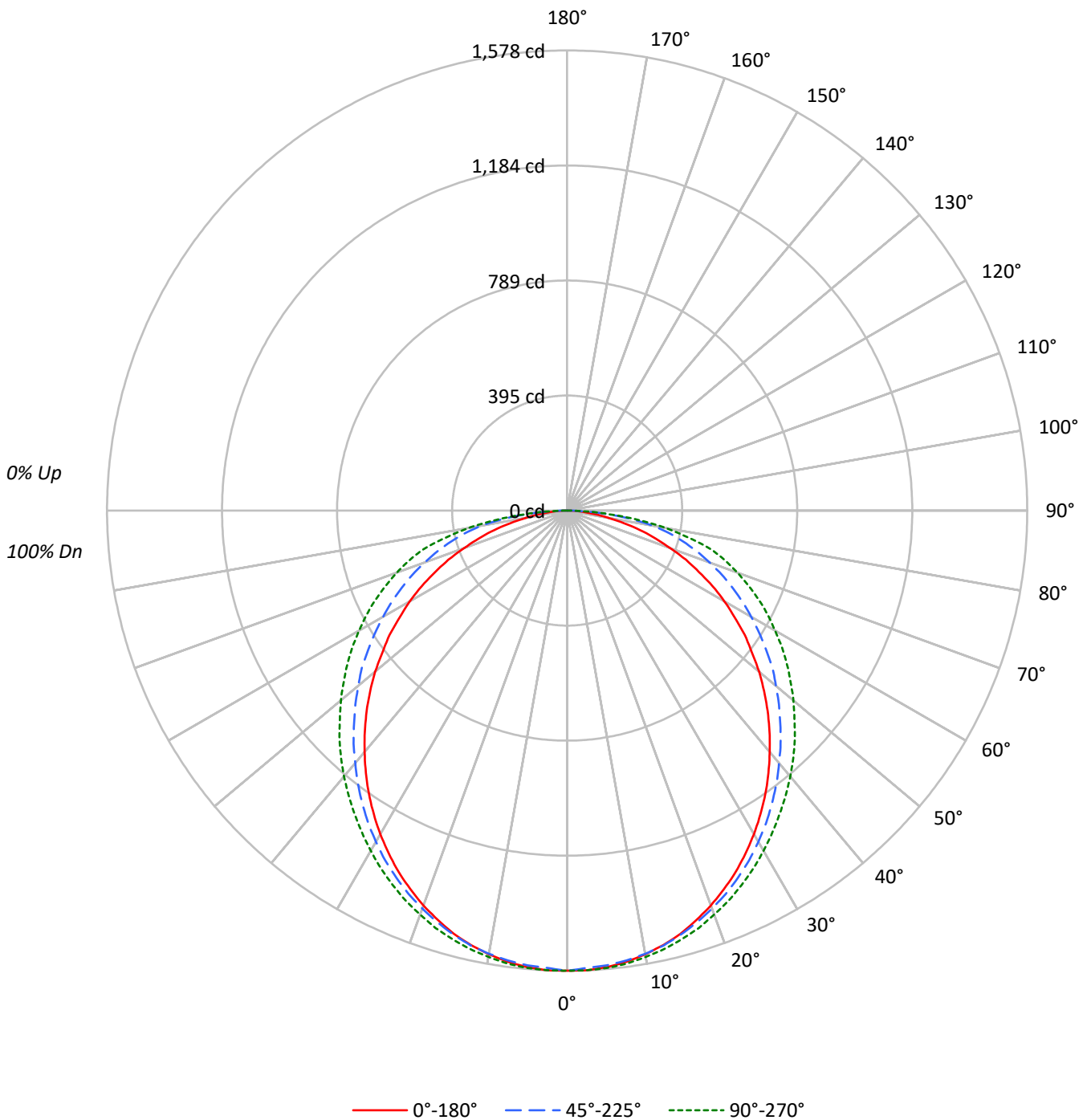
Input Watts (W): 36.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2123	2123	2123
5°	2122	2114	2127
10°	2110	2108	2123
15°	2093	2097	2119
20°	2064	2079	2111
25°	2030	2060	2102
30°	1991	2037	2093
35°	1947	2012	2087
40°	1898	1986	2091
45°	1850	1967	2101
50°	1799	1957	2121
55°	1744	1953	2160
60°	1675	1962	2215
65°	1588	1992	2312
70°	1474	2042	2443
75°	1345	2144	2650
80°	1106	2309	2649
85°	848	2130	2276



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.2	3.2
10°-20°	426.0	9.1
20°-30°	641.0	13.6
30°-40°	768.2	16.3
40°-50°	800.6	17.0
50°-60°	744.8	15.9
60°-70°	613.5	13.1
70°-80°	417.8	8.9
80°-90°	137.9	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°	1216.2	25.9
0°-40°	1984.4	42.2
0°-60°	3529.8	75.1
0°-90°	4699.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4699.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1578	1578	1578	1578	1578	
5°	1571	1571	1565	1573	1574	149
15°	1502	1504	1506	1520	1521	423
25°	1368	1374	1388	1411	1416	630
35°	1186	1200	1225	1258	1270	741
45°	972	993	1034	1085	1104	750
55°	743	768	833	899	921	663
65°	499	541	626	699	726	495
75°	259	317	412	486	510	273
85°	55	107	138	147	147	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1577.7	1577.7	1577.7	1577.7	1577.7
2.5°	1577.7	1577.7	1569.8	1577.7	1577.7
5°	1571.4	1571.4	1565.1	1573.0	1574.5
7.5°	1560.4	1562.0	1555.7	1565.1	1566.7
10°	1544.7	1546.3	1543.2	1552.6	1554.1
12.5°	1525.9	1527.5	1527.5	1538.5	1540.0
15°	1502.4	1504.0	1505.5	1519.6	1521.2
17.5°	1472.6	1477.3	1480.4	1497.7	1500.8
20°	1441.2	1445.9	1452.2	1471.0	1474.2
22.5°	1405.2	1411.4	1422.4	1442.8	1447.5
25°	1367.5	1373.8	1387.9	1411.4	1416.1
27.5°	1325.2	1334.6	1351.8	1376.9	1383.2
30°	1281.3	1290.7	1311.1	1337.7	1347.1
32.5°	1234.2	1246.8	1270.3	1300.1	1309.5
35°	1185.6	1199.7	1224.8	1257.7	1270.3
37.5°	1133.9	1149.5	1179.3	1215.4	1231.1
40°	1080.5	1099.4	1130.7	1173.1	1190.3
42.5°	1027.2	1044.5	1083.7	1129.1	1148.0
45°	972.3	992.7	1033.5	1085.2	1104.1
47.5°	915.9	936.3	984.9	1039.8	1057.0
50°	859.4	879.8	934.7	992.7	1013.1
52.5°	798.2	824.9	887.6	945.7	966.1
55°	743.4	768.4	832.7	898.6	920.6
57.5°	680.6	710.4	781.0	850.0	873.5
60°	622.6	654.0	729.2	799.8	823.3
62.5°	563.0	597.5	677.5	749.6	776.3
65°	498.7	541.1	625.7	699.4	726.1
67.5°	440.7	484.6	574.0	649.3	672.8
70°	374.8	428.1	519.1	594.4	621.0
72.5°	318.4	371.7	467.3	541.1	567.7
75°	258.8	316.8	412.5	486.2	509.7
77.5°	199.2	263.5	359.1	415.6	423.4
80°	142.7	210.1	298.0	330.9	341.9
82.5°	100.4	161.5	219.6	241.5	247.8
85°	54.9	106.6	138.0	147.4	147.4
87.5°	23.5	45.5	54.9	56.5	58.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)