

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: P389812

Luminaire Tested: **24CZ2-55VHE-S-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: P389812
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55VHE-S-UNV-L940-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4937.4 lumens
Efficiency: N/A
Efficacy: 136.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

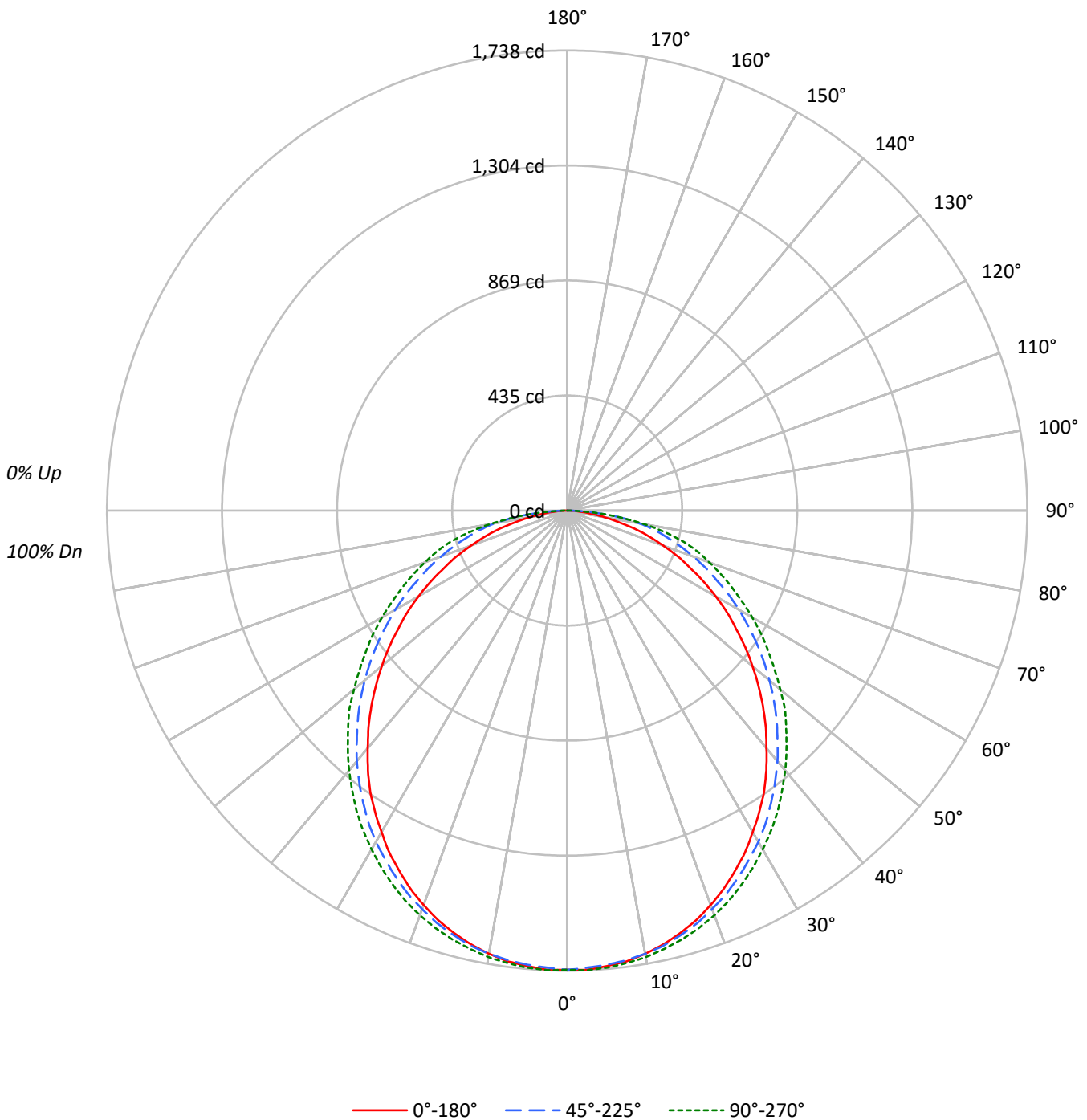
Input Watts (W): 36.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2334	2334	2334
5°	2332	2326	2341
10°	2323	2323	2340
15°	2300	2311	2335
20°	2270	2293	2329
25°	2228	2270	2314
30°	2178	2244	2295
35°	2130	2208	2277
40°	2058	2171	2250
45°	1991	2128	2226
50°	1914	2088	2200
55°	1828	2049	2178
60°	1743	2017	2174
65°	1633	1982	2187
70°	1511	1993	2246
75°	1353	2030	2373
80°	1093	2151	2321
85°	823	1888	1840



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.2	3.3
10°-20°	469.2	9.5
20°-30°	705.3	14.3
30°-40°	840.2	17.0
40°-50°	859.9	17.4
50°-60°	774.1	15.7
60°-70°	607.9	12.3
70°-80°	394.6	8.0
80°-90°	122.0	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°	1338.7	27.1
0°-40°	2178.9	44.1
0°-60°	3812.9	77.2
0°-90°	4937.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4937.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1734	1734	1734	1734	1734	
5°	1727	1730	1722	1731	1733	164
15°	1651	1656	1659	1673	1676	466
25°	1501	1513	1529	1554	1559	691
35°	1297	1313	1344	1377	1386	809
45°	1046	1071	1118	1160	1170	806
55°	779	814	874	919	928	699
65°	513	552	623	674	687	510
75°	260	310	390	444	456	275
85°	53	99	122	119	119	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1734.5	1734.5	1734.5	1734.5	1734.5
2.5°	1736.1	1736.1	1728.3	1736.1	1737.7
5°	1726.7	1729.8	1722.0	1731.4	1733.0
7.5°	1717.3	1717.3	1712.6	1722.0	1723.6
10°	1700.0	1701.6	1700.0	1711.0	1712.6
12.5°	1678.1	1681.2	1682.8	1693.8	1695.3
15°	1651.4	1656.1	1659.3	1673.4	1676.5
17.5°	1621.6	1626.3	1634.2	1649.9	1653.0
20°	1585.6	1591.8	1601.2	1621.6	1626.3
22.5°	1546.3	1552.6	1568.3	1587.1	1595.0
25°	1500.9	1513.4	1529.1	1554.2	1558.9
27.5°	1455.4	1466.4	1486.7	1513.4	1519.7
30°	1402.1	1419.3	1444.4	1471.1	1477.3
32.5°	1350.3	1367.6	1397.4	1425.6	1433.4
35°	1297.0	1312.7	1344.0	1377.0	1386.4
37.5°	1235.8	1256.2	1290.7	1323.6	1333.1
40°	1171.5	1196.6	1235.8	1270.3	1281.3
42.5°	1110.4	1137.0	1176.2	1213.9	1226.4
45°	1046.1	1071.1	1118.2	1160.5	1170.0
47.5°	980.2	1008.4	1058.6	1100.9	1116.6
50°	914.3	944.1	997.4	1041.4	1050.8
52.5°	848.5	879.8	936.3	983.3	988.0
55°	779.4	813.9	873.5	919.0	928.4
57.5°	716.7	746.5	810.8	857.9	868.8
60°	647.7	680.6	749.6	793.6	807.7
62.5°	581.8	616.3	688.5	732.4	744.9
65°	512.8	552.0	622.6	674.4	686.9
67.5°	453.2	490.9	566.2	616.3	628.9
70°	384.2	426.6	506.6	558.3	570.9
72.5°	324.6	368.6	448.5	498.7	517.5
75°	260.3	310.5	390.5	443.8	456.4
77.5°	197.6	255.6	337.2	378.0	378.0
80°	141.1	202.3	277.6	296.4	299.5
82.5°	92.5	152.1	205.4	203.9	203.9
85°	53.3	98.8	122.3	119.2	119.2
87.5°	20.4	40.8	43.9	43.9	42.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)