

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: P391825

Luminaire Tested: **24CZ2-90VHE-RDP-UNV-L935-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: P391825
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-90VHE-RDP-UNV-L935-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5084.0 lumens
Efficiency: N/A
Efficacy: 82.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

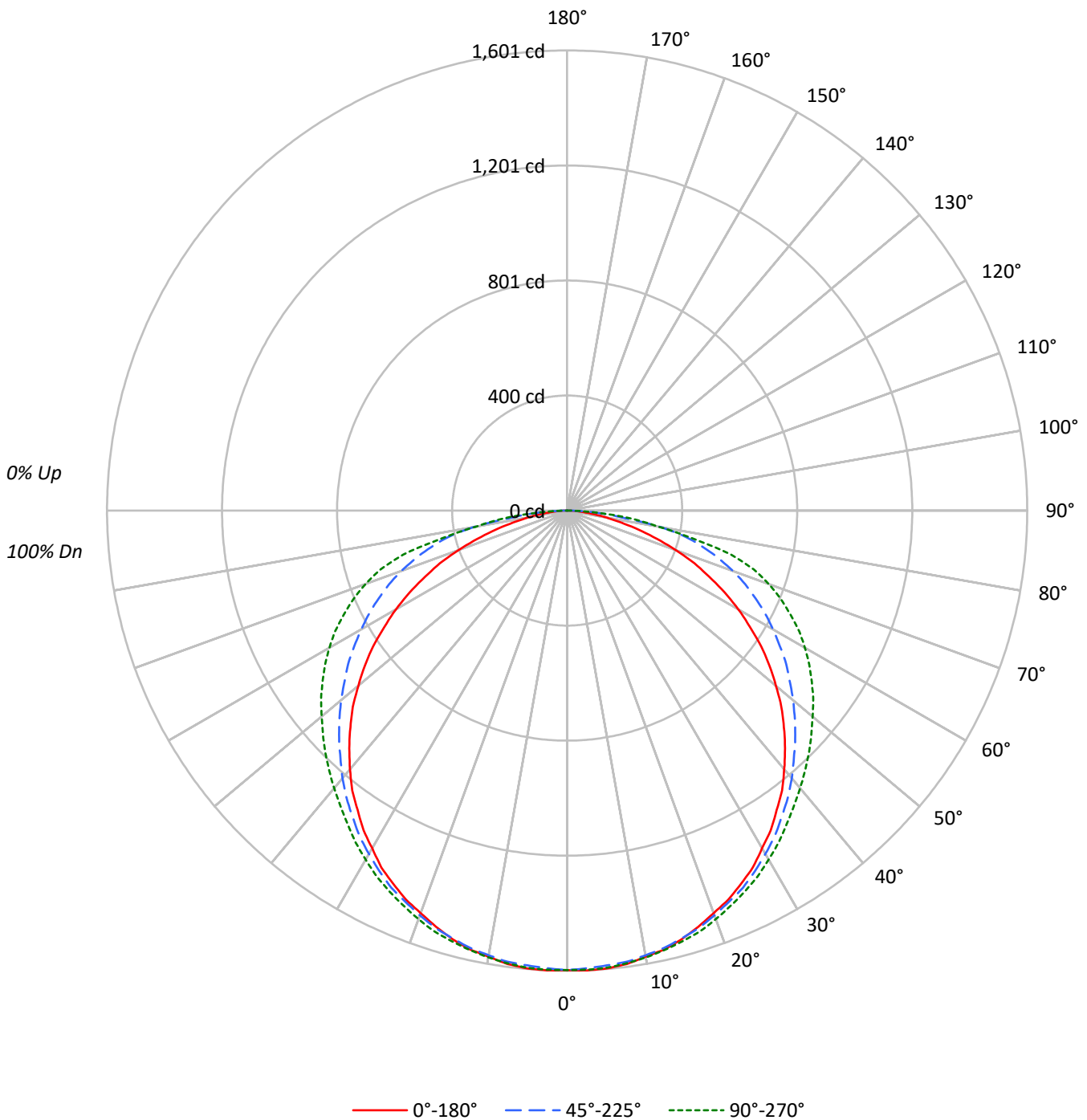
Input Watts (W): 61.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2151	2151	2151
5°	2159	2146	2156
10°	2153	2146	2157
15°	2150	2146	2160
20°	2134	2145	2166
25°	2126	2149	2171
30°	2108	2143	2178
35°	2088	2137	2187
40°	2064	2135	2215
45°	2030	2135	2265
50°	1985	2148	2333
55°	1934	2183	2437
60°	1852	2226	2572
65°	1734	2304	2730
70°	1578	2411	2936
75°	1337	2543	3068
80°	1055	2559	2482
85°	778	1947	2180



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.7	3.0
10°-20°	436.5	8.6
20°-30°	667.5	13.1
30°-40°	816.0	16.0
40°-50°	869.7	17.1
50°-60°	831.5	16.4
60°-70°	704.4	13.9
70°-80°	473.4	9.3
80°-90°	133.5	2.6
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°	1255.6	24.7
0°-40°	2071.6	40.7
0°-60°	3772.7	74.2
0°-90°	5084.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5084.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1599	1599	1599	1599	1599	
5°	1599	1596	1589	1596	1596	152
15°	1543	1543	1541	1553	1551	435
25°	1432	1437	1448	1460	1463	660
35°	1271	1281	1301	1326	1332	796
45°	1067	1084	1122	1170	1190	823
55°	825	855	930	1004	1039	734
65°	545	600	724	820	857	541
75°	257	350	489	572	590	275
85°	50	103	126	136	141	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1598.8	1598.8	1598.8	1598.8	1598.8
2.5°	1601.3	1601.3	1593.7	1598.8	1598.8
5°	1598.8	1596.3	1588.7	1596.3	1596.3
7.5°	1591.2	1588.7	1583.6	1591.2	1588.7
10°	1576.1	1576.1	1571.0	1578.6	1578.6
12.5°	1563.5	1560.9	1558.4	1568.5	1566.0
15°	1543.3	1543.3	1540.8	1553.4	1550.9
17.5°	1518.1	1520.6	1523.1	1533.2	1535.7
20°	1490.3	1495.4	1497.9	1513.0	1513.0
22.5°	1465.1	1467.6	1472.7	1487.8	1487.8
25°	1432.3	1437.4	1447.5	1460.1	1462.6
27.5°	1399.6	1402.1	1414.7	1432.3	1434.9
30°	1356.7	1364.3	1379.4	1399.6	1402.1
32.5°	1318.9	1326.4	1344.1	1364.3	1369.3
35°	1270.9	1281.0	1301.2	1326.4	1331.5
37.5°	1228.1	1235.6	1260.9	1288.6	1296.2
40°	1175.1	1190.3	1215.5	1248.3	1260.9
42.5°	1122.2	1137.3	1167.6	1210.4	1225.6
45°	1066.7	1084.3	1122.2	1170.1	1190.3
47.5°	1011.2	1031.4	1074.3	1129.7	1152.4
50°	948.2	973.4	1026.3	1089.4	1114.6
52.5°	887.6	917.9	975.9	1046.5	1079.3
55°	824.6	854.9	930.5	1003.6	1039.0
57.5°	754.0	794.3	877.6	960.8	998.6
60°	688.4	726.3	827.1	917.9	955.7
62.5°	617.8	668.3	776.7	872.5	910.3
65°	544.7	600.2	723.7	819.6	857.4
67.5°	479.1	539.6	670.8	766.6	804.4
70°	401.0	476.6	612.8	708.6	746.4
72.5°	327.8	411.0	552.3	645.6	680.9
75°	257.2	350.5	489.2	572.4	590.1
77.5°	191.7	290.0	423.6	459.0	446.3
80°	136.2	232.0	330.3	312.7	320.3
82.5°	88.3	176.5	204.3	232.0	239.6
85°	50.4	103.4	126.1	136.2	141.2
87.5°	22.7	37.8	50.4	50.4	47.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)