

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: P391826

Luminaire Tested: **24CZ2-90VHE-RDP-UNV-L935-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: P391826
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-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: 5147.9 lumens
Efficiency: N/A
Efficacy: 83.3 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

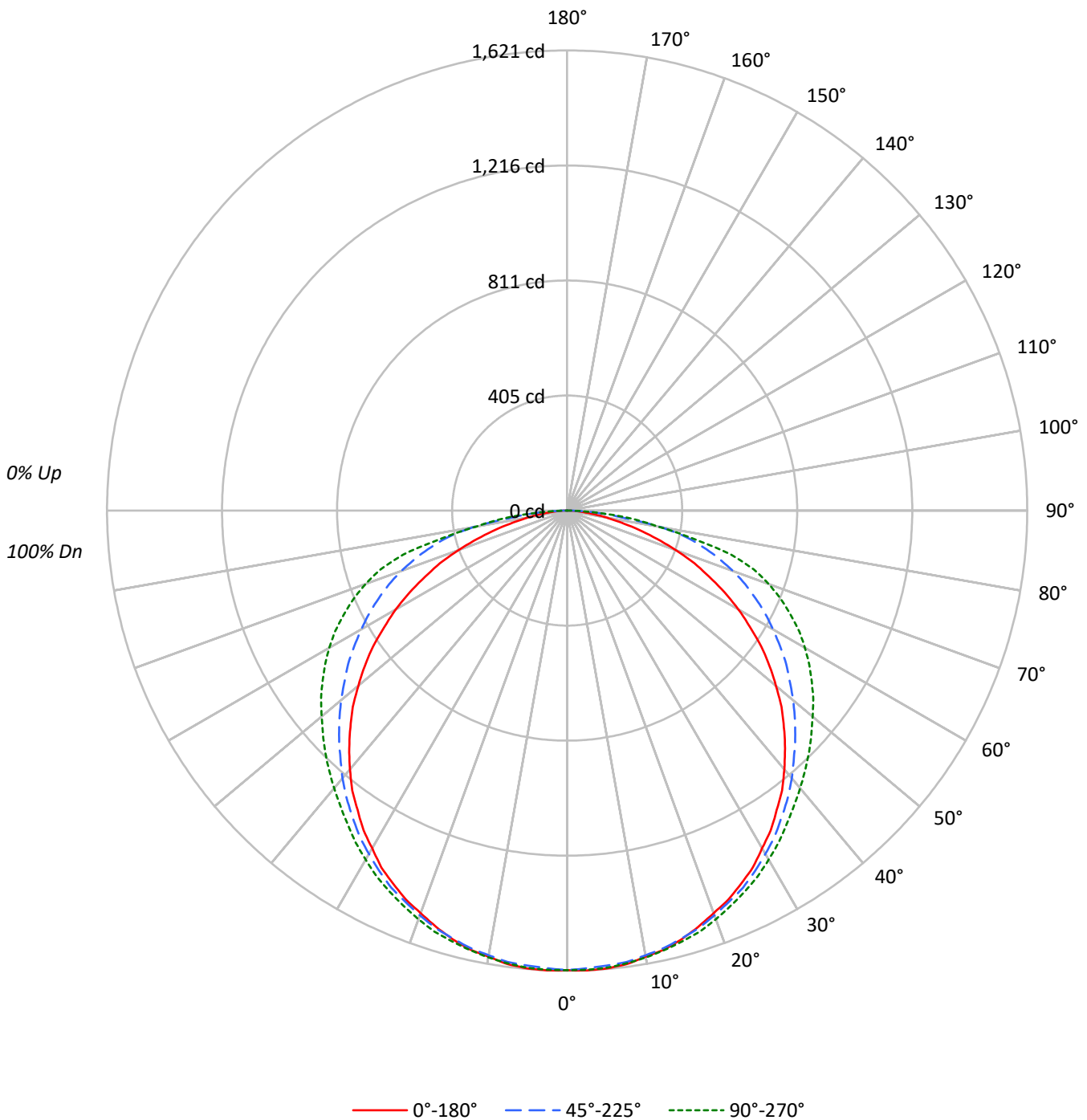
Input Watts (W): 61.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2178	2178	2178
5°	2187	2173	2183
10°	2180	2173	2184
15°	2177	2173	2187
20°	2161	2172	2194
25°	2153	2176	2199
30°	2134	2170	2206
35°	2114	2164	2214
40°	2090	2162	2242
45°	2055	2162	2293
50°	2010	2175	2362
55°	1959	2210	2468
60°	1876	2254	2604
65°	1756	2333	2764
70°	1597	2441	2973
75°	1354	2575	3106
80°	1068	2592	2513
85°	789	1971	2208



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.6	3.0
10°-20°	442.0	8.6
20°-30°	675.8	13.1
30°-40°	826.2	16.0
40°-50°	880.6	17.1
50°-60°	841.9	16.4
60°-70°	713.2	13.9
70°-80°	479.3	9.3
80°-90°	135.2	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°	1271.4	24.7
0°-40°	2097.6	40.7
0°-60°	3820.1	74.2
0°-90°	5147.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5147.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1619	1619	1619	1619	1619	
5°	1619	1616	1609	1616	1616	154
15°	1563	1563	1560	1573	1570	441
25°	1450	1455	1466	1478	1481	668
35°	1287	1297	1318	1343	1348	806
45°	1080	1098	1136	1185	1205	833
55°	835	866	942	1016	1052	744
65°	552	608	733	830	868	548
75°	260	355	495	580	598	279
85°	51	105	128	138	143	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1618.9	1618.9	1618.9	1618.9	1618.9
2.5°	1621.4	1621.4	1613.8	1618.9	1618.9
5°	1618.9	1616.3	1608.7	1616.3	1616.3
7.5°	1611.2	1608.7	1603.5	1611.2	1608.7
10°	1595.9	1595.9	1590.8	1598.4	1598.4
12.5°	1583.1	1580.6	1578.0	1588.2	1585.7
15°	1562.7	1562.7	1560.1	1572.9	1570.4
17.5°	1537.2	1539.7	1542.3	1552.5	1555.0
20°	1509.1	1514.2	1516.7	1532.1	1532.1
22.5°	1483.5	1486.1	1491.2	1506.5	1506.5
25°	1450.3	1455.4	1465.7	1478.4	1481.0
27.5°	1417.1	1419.7	1432.5	1450.3	1452.9
30°	1373.7	1381.4	1396.7	1417.1	1419.7
32.5°	1335.4	1343.1	1361.0	1381.4	1386.5
35°	1286.9	1297.1	1317.6	1343.1	1348.2
37.5°	1243.5	1251.2	1276.7	1304.8	1312.5
40°	1189.9	1205.2	1230.7	1263.9	1276.7
42.5°	1136.3	1151.6	1182.2	1225.6	1241.0
45°	1080.1	1098.0	1136.3	1184.8	1205.2
47.5°	1023.9	1044.3	1087.8	1143.9	1166.9
50°	960.1	985.6	1039.2	1103.1	1128.6
52.5°	898.8	929.4	988.2	1059.7	1092.9
55°	835.0	865.6	942.2	1016.3	1052.0
57.5°	763.5	804.3	888.6	972.9	1011.2
60°	697.1	735.4	837.5	929.4	967.7
62.5°	625.6	676.7	786.5	883.5	921.8
65°	551.5	607.7	732.8	829.9	868.2
67.5°	485.1	546.4	679.2	776.2	814.5
70°	406.0	482.6	620.5	717.5	755.8
72.5°	331.9	416.2	559.2	653.7	689.4
75°	260.4	354.9	495.4	579.6	597.5
77.5°	194.1	293.6	429.0	464.7	452.0
80°	137.9	234.9	334.5	316.6	324.3
82.5°	89.4	178.7	206.8	234.9	242.6
85°	51.1	104.7	127.7	137.9	143.0
87.5°	23.0	38.3	51.1	51.1	48.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)