

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: P391588

Luminaire Tested: **24CZ2-65VHE-RDP-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: P391588
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: 24CZ2-65VHE-RDP-UNV-L940-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3724.9 lumens
Efficiency: N/A
Efficacy: 88.3 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

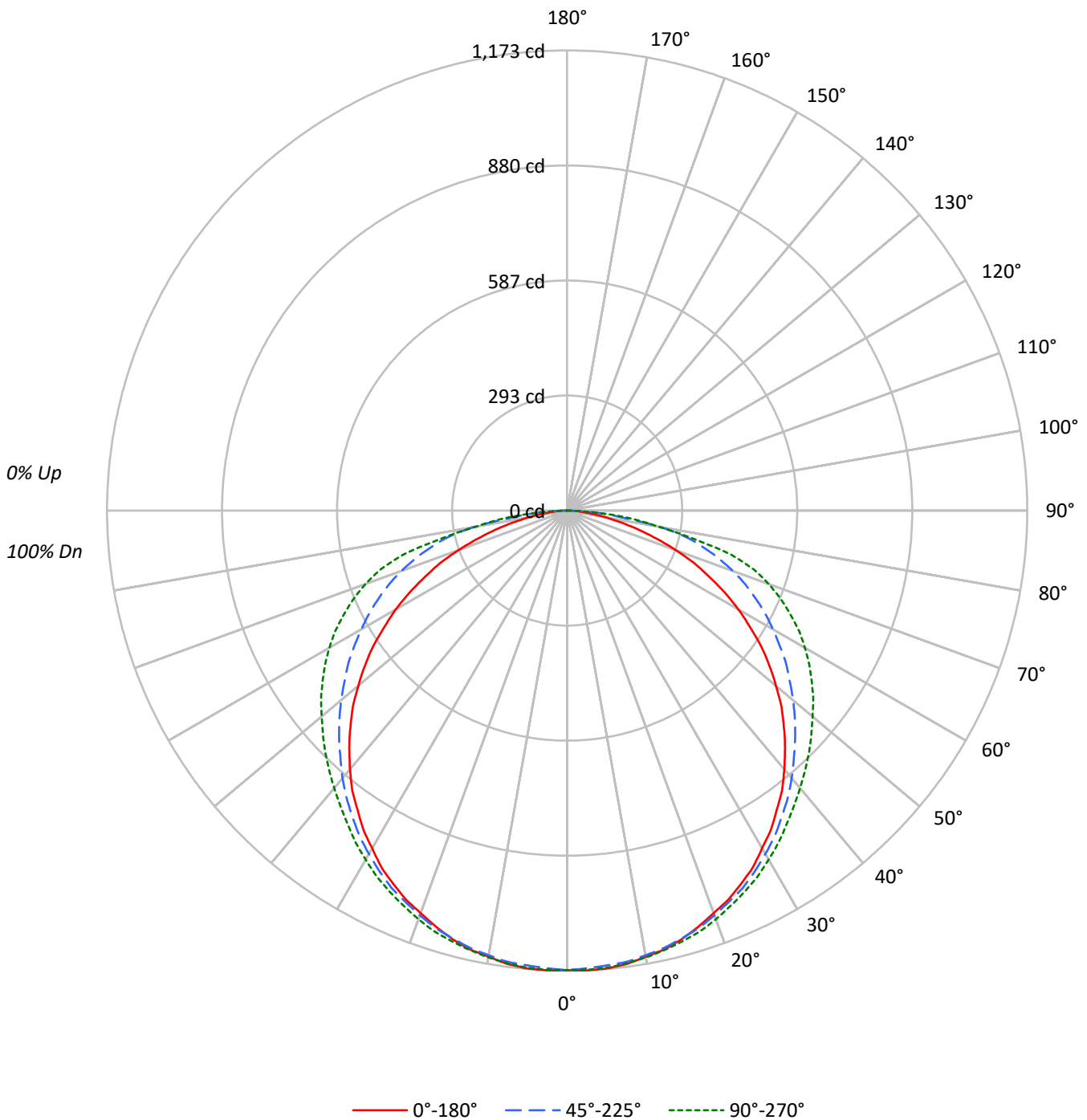
Input Watts (W): 42.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1576	1576	1576
5°	1582	1572	1580
10°	1578	1573	1580
15°	1575	1573	1583
20°	1563	1571	1587
25°	1558	1574	1591
30°	1544	1570	1596
35°	1530	1566	1602
40°	1512	1564	1623
45°	1487	1564	1659
50°	1454	1574	1709
55°	1417	1599	1786
60°	1357	1631	1884
65°	1271	1688	2000
70°	1156	1766	2151
75°	980	1863	2247
80°	773	1875	1818
85°	571	1426	1598



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.1	3.0
10°-20°	319.8	8.6
20°-30°	489.0	13.1
30°-40°	597.8	16.0
40°-50°	637.2	17.1
50°-60°	609.2	16.4
60°-70°	516.1	13.9
70°-80°	346.9	9.3
80°-90°	97.9	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°	919.9	24.7
0°-40°	1517.8	40.7
0°-60°	2764.1	74.2
0°-90°	3724.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3724.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1171	1171	1171	1171	1171	
5°	1171	1170	1164	1170	1170	111
15°	1131	1131	1129	1138	1136	319
25°	1049	1053	1060	1070	1072	484
35°	931	939	953	972	976	583
45°	782	794	822	857	872	603
55°	604	626	682	735	761	538
65°	399	440	530	600	628	396
75°	188	257	358	419	432	202
85°	37	76	92	100	104	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1171.4	1171.4	1171.4	1171.4	1171.4
2.5°	1173.2	1173.2	1167.7	1171.4	1171.4
5°	1171.4	1169.5	1164.0	1169.5	1169.5
7.5°	1165.8	1164.0	1160.3	1165.8	1164.0
10°	1154.7	1154.7	1151.1	1156.6	1156.6
12.5°	1145.5	1143.7	1141.8	1149.2	1147.4
15°	1130.7	1130.7	1128.9	1138.1	1136.3
17.5°	1112.3	1114.1	1115.9	1123.3	1125.2
20°	1091.9	1095.6	1097.5	1108.6	1108.6
22.5°	1073.5	1075.3	1079.0	1090.1	1090.1
25°	1049.4	1053.1	1060.5	1069.8	1071.6
27.5°	1025.4	1027.3	1036.5	1049.4	1051.3
30°	994.0	999.5	1010.6	1025.4	1027.3
32.5°	966.3	971.8	984.8	999.5	1003.2
35°	931.2	938.6	953.4	971.8	975.5
37.5°	899.8	905.3	923.8	944.1	949.7
40°	861.0	872.1	890.5	914.6	923.8
42.5°	822.2	833.3	855.4	886.8	897.9
45°	781.5	794.5	822.2	857.3	872.1
47.5°	740.9	755.7	787.1	827.7	844.4
50°	694.7	713.2	752.0	798.2	816.6
52.5°	650.4	672.5	715.0	766.8	790.8
55°	604.2	626.3	681.8	735.3	761.2
57.5°	552.4	582.0	643.0	703.9	731.6
60°	504.4	532.1	606.0	672.5	700.2
62.5°	452.7	489.6	569.1	639.3	667.0
65°	399.1	439.7	530.3	600.5	628.2
67.5°	351.0	395.4	491.5	561.7	589.4
70°	293.8	349.2	449.0	519.2	546.9
72.5°	240.2	301.2	404.6	473.0	498.9
75°	188.5	256.8	358.4	419.4	432.3
77.5°	140.4	212.5	310.4	336.3	327.0
80°	99.8	170.0	242.0	229.1	234.6
82.5°	64.7	129.3	149.7	170.0	175.5
85°	37.0	75.8	92.4	99.8	103.5
87.5°	16.6	27.7	37.0	37.0	35.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)