

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: P391640

Luminaire Tested: **24CZ2-70VHE-RDP-UNV-L950-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: P391640
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: 24CZ2-70VHE-RDP-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4304.7 lumens
Efficiency: N/A
Efficacy: 94.2 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

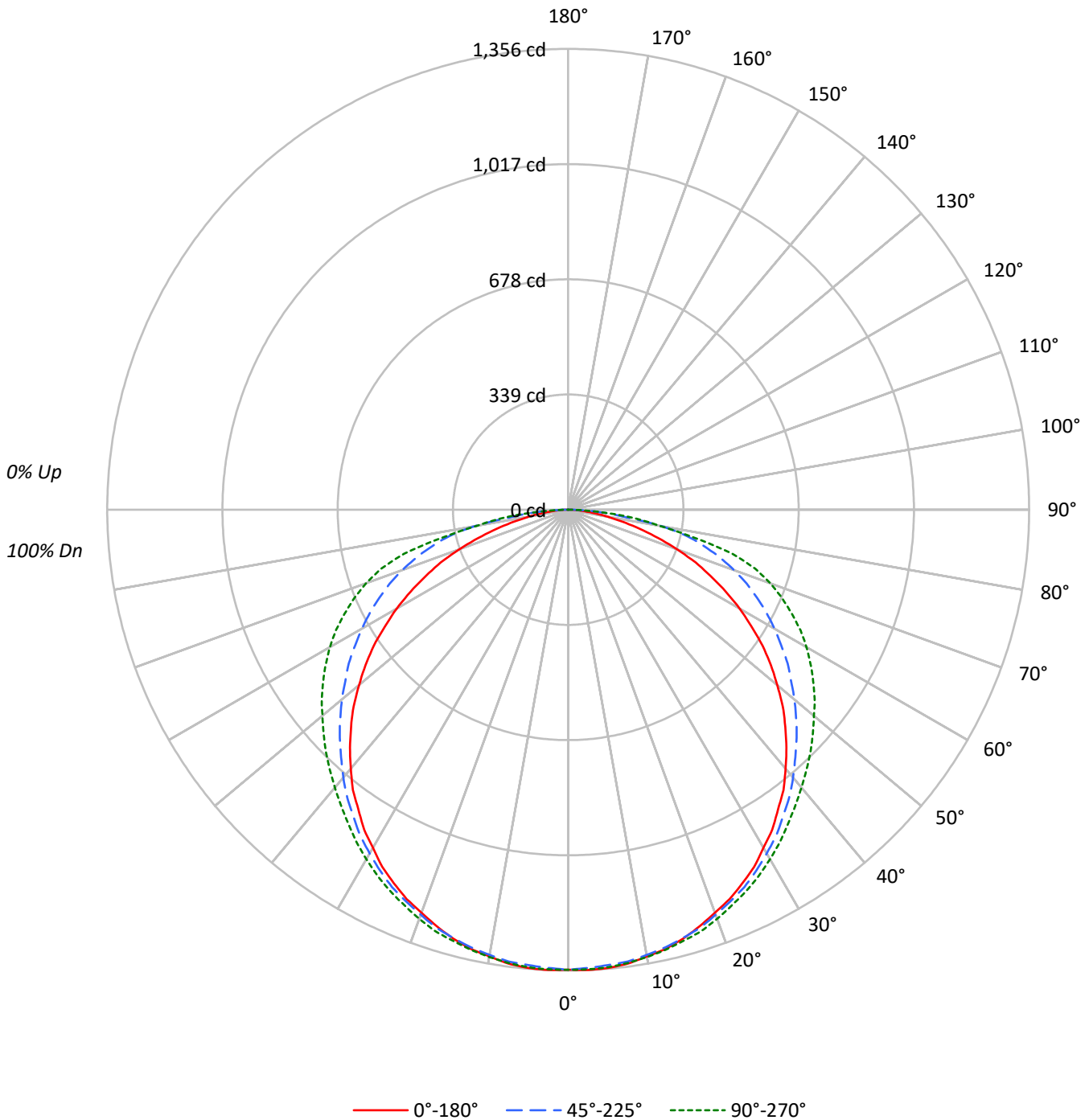
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	68	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°	1821	1821	1821
5°	1828	1817	1826
10°	1823	1817	1826
15°	1820	1817	1829
20°	1807	1816	1834
25°	1801	1820	1839
30°	1785	1814	1844
35°	1768	1810	1852
40°	1748	1808	1875
45°	1719	1808	1918
50°	1680	1819	1976
55°	1638	1848	2064
60°	1569	1884	2178
65°	1468	1951	2311
70°	1336	2041	2486
75°	1132	2153	2597
80°	893	2167	2101
85°	659	1649	1846



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.4	3.0
10°-20°	369.6	8.6
20°-30°	565.1	13.1
30°-40°	690.9	16.0
40°-50°	736.3	17.1
50°-60°	704.0	16.4
60°-70°	596.4	13.9
70°-80°	400.8	9.3
80°-90°	113.1	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°	1063.1	24.7
0°-40°	1754.0	40.7
0°-60°	3194.4	74.2
0°-90°	4304.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4304.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1354	1354	1354	1354	1354	
5°	1354	1352	1345	1352	1352	129
15°	1307	1307	1305	1315	1313	368
25°	1213	1217	1226	1236	1238	559
35°	1076	1085	1102	1123	1127	674
45°	903	918	950	991	1008	697
55°	698	724	788	850	880	622
65°	461	508	613	694	726	458
75°	218	297	414	485	500	233
85°	43	88	107	115	120	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1353.7	1353.7	1353.7	1353.7	1353.7
2.5°	1355.8	1355.8	1349.4	1353.7	1353.7
5°	1353.7	1351.6	1345.2	1351.6	1351.6
7.5°	1347.3	1345.2	1340.9	1347.3	1345.2
10°	1334.5	1334.5	1330.2	1336.6	1336.6
12.5°	1323.8	1321.7	1319.5	1328.1	1325.9
15°	1306.7	1306.7	1304.6	1315.3	1313.1
17.5°	1285.4	1287.5	1289.6	1298.2	1300.3
20°	1261.9	1266.2	1268.3	1281.1	1281.1
22.5°	1240.5	1242.7	1246.9	1259.8	1259.8
25°	1212.8	1217.1	1225.6	1236.3	1238.4
27.5°	1185.0	1187.2	1197.8	1212.8	1214.9
30°	1148.7	1155.1	1167.9	1185.0	1187.2
32.5°	1116.7	1123.1	1138.1	1155.1	1159.4
35°	1076.1	1084.7	1101.8	1123.1	1127.4
37.5°	1039.8	1046.2	1067.6	1091.1	1097.5
40°	995.0	1007.8	1029.2	1056.9	1067.6
42.5°	950.2	963.0	988.6	1024.9	1037.7
45°	903.2	918.1	950.2	990.7	1007.8
47.5°	856.2	873.3	909.6	956.6	975.8
50°	802.8	824.2	869.0	922.4	943.8
52.5°	751.6	777.2	826.3	886.1	913.9
55°	698.2	723.8	787.9	849.8	879.7
57.5°	638.4	672.6	743.0	813.5	845.5
60°	582.9	614.9	700.3	777.2	809.2
62.5°	523.1	565.8	657.6	738.8	770.8
65°	461.2	508.2	612.8	693.9	726.0
67.5°	405.7	456.9	568.0	649.1	681.1
70°	339.5	403.5	518.8	600.0	632.0
72.5°	277.6	348.0	467.6	546.6	576.5
75°	217.8	296.8	414.2	484.7	499.6
77.5°	162.3	245.5	358.7	388.6	377.9
80°	115.3	196.4	279.7	264.8	271.2
82.5°	74.7	149.5	172.9	196.4	202.8
85°	42.7	87.5	106.8	115.3	119.6
87.5°	19.2	32.0	42.7	42.7	40.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)