

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: P391639

Luminaire Tested: **24CZ2-70VHE-RDP-UNV-L950-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: P391639
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-SWPD1-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: 4251.3 lumens
Efficiency: N/A
Efficacy: 93.0 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

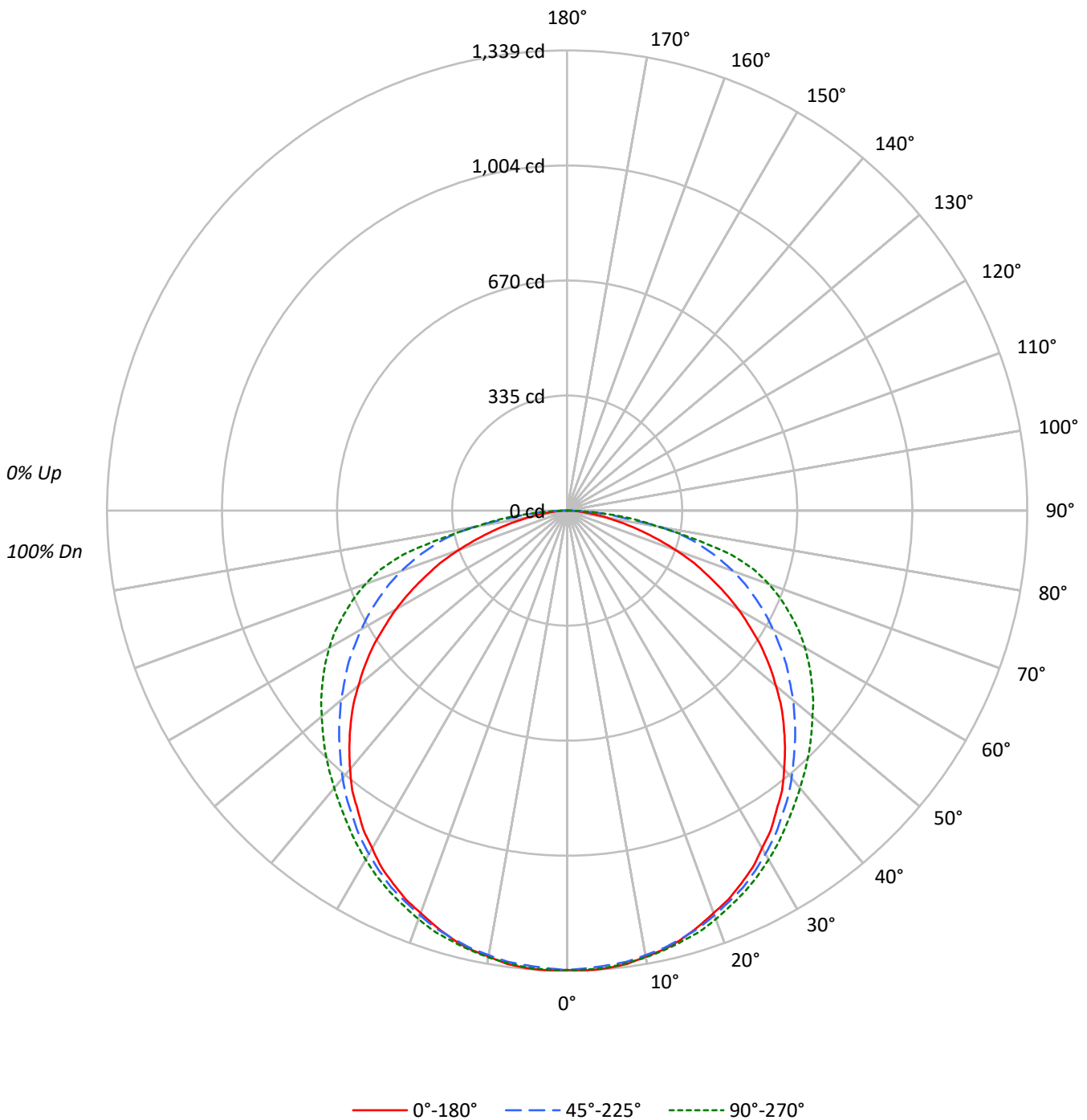
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1799	1799	1799
5°	1806	1794	1803
10°	1801	1795	1803
15°	1798	1795	1806
20°	1784	1794	1812
25°	1778	1797	1816
30°	1763	1792	1821
35°	1746	1787	1829
40°	1726	1785	1852
45°	1697	1786	1894
50°	1660	1796	1951
55°	1617	1825	2038
60°	1549	1861	2151
65°	1450	1927	2283
70°	1319	2016	2456
75°	1118	2127	2565
80°	883	2140	2075
85°	651	1627	1823



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.8	3.0
10°-20°	365.0	8.6
20°-30°	558.1	13.1
30°-40°	682.3	16.0
40°-50°	727.2	17.1
50°-60°	695.3	16.4
60°-70°	589.0	13.9
70°-80°	395.9	9.3
80°-90°	111.7	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°	1049.9	24.7
0°-40°	1732.2	40.7
0°-60°	3154.8	74.2
0°-90°	4251.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4251.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1337	1337	1337	1337	1337	
5°	1337	1335	1328	1335	1335	127
15°	1290	1290	1288	1299	1297	364
25°	1198	1202	1210	1221	1223	552
35°	1063	1071	1088	1109	1113	666
45°	892	907	938	978	995	688
55°	690	715	778	839	869	614
65°	456	502	605	685	717	452
75°	215	293	409	479	493	230
85°	42	86	105	114	118	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1336.9	1336.9	1336.9	1336.9	1336.9
2.5°	1339.0	1339.0	1332.7	1336.9	1336.9
5°	1336.9	1334.8	1328.5	1334.8	1334.8
7.5°	1330.6	1328.5	1324.3	1330.6	1328.5
10°	1317.9	1317.9	1313.7	1320.0	1320.0
12.5°	1307.4	1305.3	1303.2	1311.6	1309.5
15°	1290.5	1290.5	1288.4	1299.0	1296.8
17.5°	1269.4	1271.5	1273.7	1282.1	1284.2
20°	1246.2	1250.5	1252.6	1265.2	1265.2
22.5°	1225.2	1227.3	1231.5	1244.1	1244.1
25°	1197.7	1202.0	1210.4	1220.9	1223.0
27.5°	1170.3	1172.4	1183.0	1197.7	1199.8
30°	1134.5	1140.8	1153.5	1170.3	1172.4
32.5°	1102.8	1109.2	1123.9	1140.8	1145.0
35°	1062.8	1071.2	1088.1	1109.2	1113.4
37.5°	1026.9	1033.3	1054.3	1077.5	1083.9
40°	982.7	995.3	1016.4	1043.8	1054.3
42.5°	938.4	951.0	976.3	1012.2	1024.8
45°	892.0	906.7	938.4	978.4	995.3
47.5°	845.6	862.5	898.3	944.7	963.7
50°	792.9	814.0	858.2	911.0	932.0
52.5°	742.3	767.6	816.1	875.1	902.5
55°	689.5	714.8	778.1	839.3	868.8
57.5°	630.5	664.2	733.8	803.4	835.0
60°	575.7	607.3	691.7	767.6	799.2
62.5°	516.6	558.8	649.5	729.6	761.2
65°	455.5	501.9	605.2	685.3	717.0
67.5°	400.7	451.3	560.9	641.0	672.7
70°	335.3	398.5	512.4	592.5	624.2
72.5°	274.1	343.7	461.8	539.8	569.3
75°	215.1	293.1	409.1	478.7	493.4
77.5°	160.3	242.5	354.3	383.8	373.2
80°	113.9	194.0	276.2	261.5	267.8
82.5°	73.8	147.6	170.8	194.0	200.3
85°	42.2	86.5	105.4	113.9	118.1
87.5°	19.0	31.6	42.2	42.2	40.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)