

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: P391683

Luminaire Tested: **24CZ2-75VHE-RDP-UNV-L940-CD1-SDWPD1-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: P391683
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: 24CZ2-75VHE-RDP-UNV-L940-CD1-SDWPD1-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: 4294.9 lumens
Efficiency: N/A
Efficacy: 86.1 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

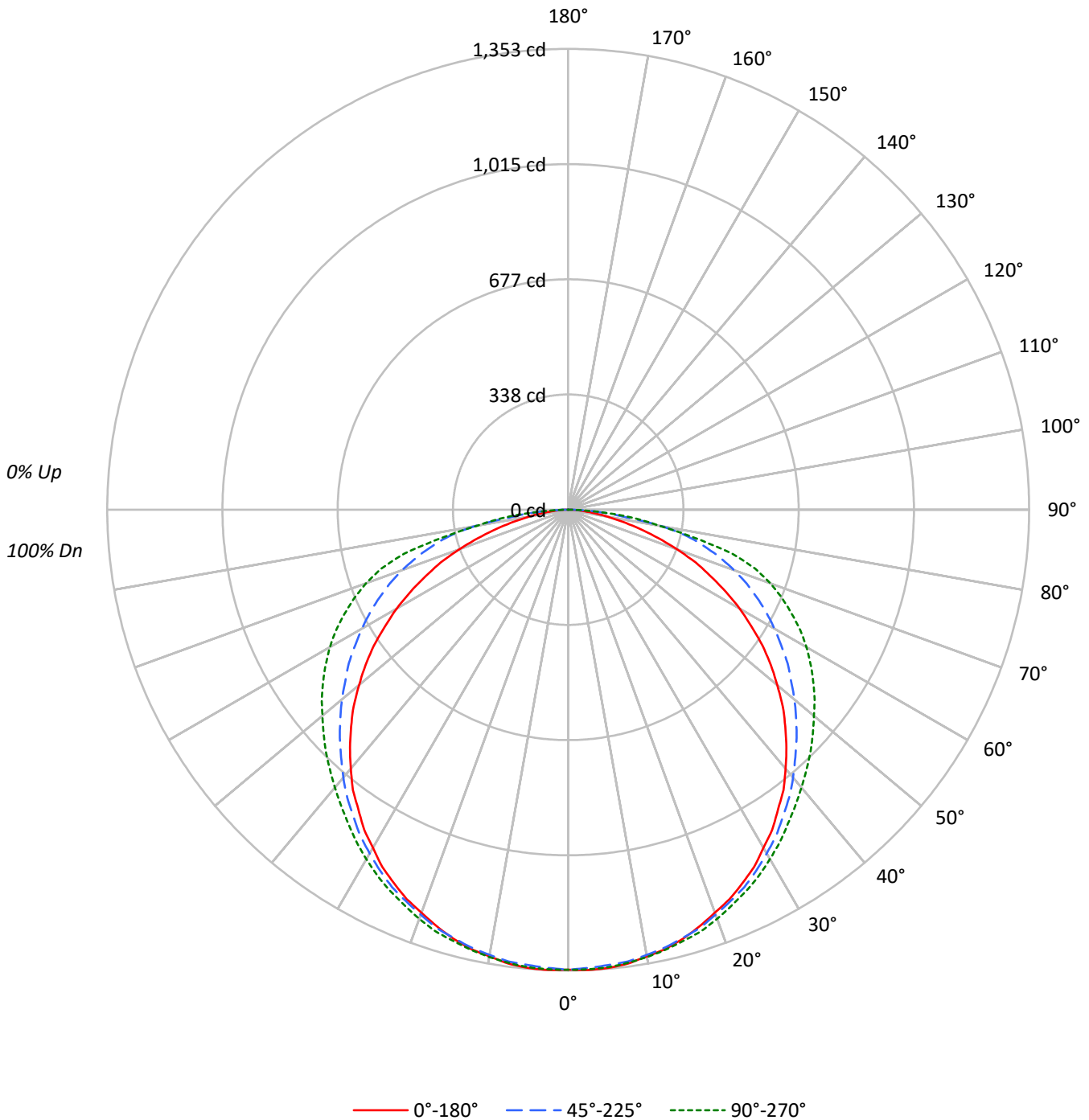
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1817	1817	1817
5°	1824	1813	1821
10°	1819	1813	1822
15°	1816	1813	1825
20°	1803	1812	1830
25°	1796	1815	1834
30°	1781	1810	1840
35°	1764	1805	1848
40°	1744	1803	1871
45°	1715	1804	1913
50°	1677	1815	1971
55°	1634	1844	2059
60°	1565	1880	2173
65°	1465	1947	2306
70°	1332	2037	2481
75°	1130	2149	2591
80°	891	2163	2097
85°	658	1644	1842



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.1	3.0
10°-20°	368.7	8.6
20°-30°	563.9	13.1
30°-40°	689.3	16.0
40°-50°	734.7	17.1
50°-60°	702.4	16.4
60°-70°	595.0	13.9
70°-80°	399.9	9.3
80°-90°	112.8	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°	1060.7	24.7
0°-40°	1750.0	40.7
0°-60°	3187.1	74.2
0°-90°	4294.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4294.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1351	1351	1351	1351	1351	
5°	1351	1348	1342	1348	1348	128
15°	1304	1304	1302	1312	1310	368
25°	1210	1214	1223	1234	1236	558
35°	1074	1082	1099	1120	1125	673
45°	901	916	948	988	1006	695
55°	697	722	786	848	878	620
65°	460	507	611	692	724	457
75°	217	296	413	484	498	233
85°	43	87	106	115	119	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1350.6	1350.6	1350.6	1350.6	1350.6
2.5°	1352.8	1352.8	1346.4	1350.6	1350.6
5°	1350.6	1348.5	1342.1	1348.5	1348.5
7.5°	1344.2	1342.1	1337.8	1344.2	1342.1
10°	1331.5	1331.5	1327.2	1333.6	1333.6
12.5°	1320.8	1318.7	1316.5	1325.1	1322.9
15°	1303.8	1303.8	1301.6	1312.3	1310.1
17.5°	1282.5	1284.6	1286.7	1295.2	1297.4
20°	1259.0	1263.3	1265.4	1278.2	1278.2
22.5°	1237.7	1239.8	1244.1	1256.9	1256.9
25°	1210.0	1214.3	1222.8	1233.5	1235.6
27.5°	1182.3	1184.5	1195.1	1210.0	1212.2
30°	1146.1	1152.5	1165.3	1182.3	1184.5
32.5°	1114.2	1120.5	1135.5	1152.5	1156.8
35°	1073.7	1082.2	1099.2	1120.5	1124.8
37.5°	1037.5	1043.9	1065.2	1088.6	1095.0
40°	992.7	1005.5	1026.8	1054.5	1065.2
42.5°	948.0	960.8	986.3	1022.6	1035.3
45°	901.1	916.0	948.0	988.5	1005.5
47.5°	854.3	871.3	907.5	954.4	973.6
50°	801.0	822.3	867.0	920.3	941.6
52.5°	749.9	775.4	824.4	884.1	911.8
55°	696.6	722.2	786.1	847.9	877.7
57.5°	637.0	671.1	741.4	811.7	843.6
60°	581.6	613.5	698.7	775.4	807.4
62.5°	521.9	564.5	656.1	737.1	769.0
65°	460.1	507.0	611.4	692.4	724.3
67.5°	404.8	455.9	566.7	647.6	679.6
70°	338.7	402.6	517.7	598.6	630.6
72.5°	276.9	347.2	466.5	545.4	575.2
75°	217.3	296.1	413.3	483.6	498.5
77.5°	161.9	245.0	357.9	387.7	377.1
80°	115.0	196.0	279.1	264.2	270.6
82.5°	74.6	149.1	172.6	196.0	202.4
85°	42.6	87.3	106.5	115.0	119.3
87.5°	19.2	32.0	42.6	42.6	40.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)