

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: P391732

Luminaire Tested: **24CZ2-80VHE-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: P391732
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: 24CZ2-80VHE-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: 4611.9 lumens
Efficiency: N/A
Efficacy: 85.7 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

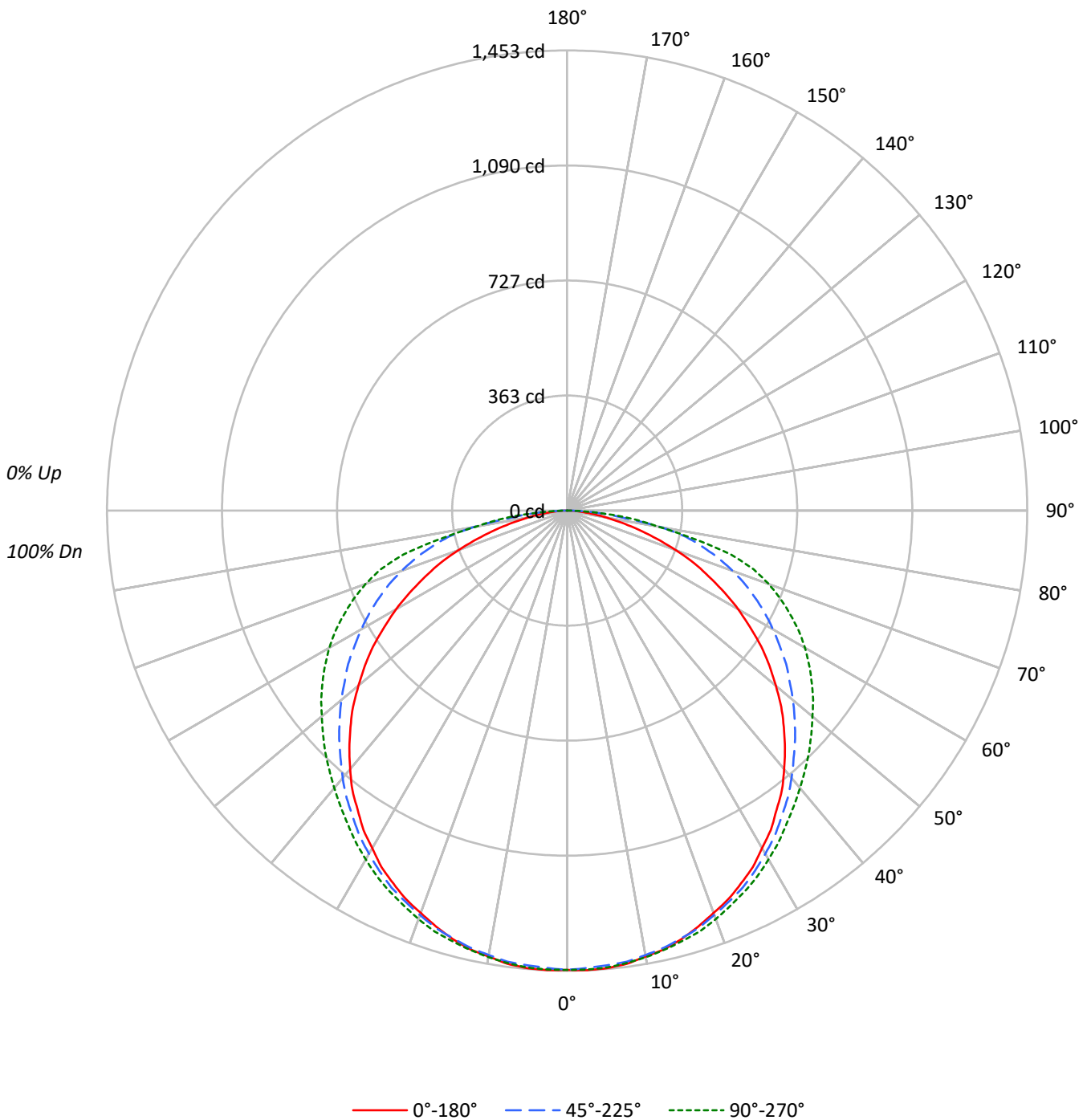
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1951	1951	1951
5°	1959	1946	1956
10°	1953	1947	1956
15°	1950	1947	1960
20°	1936	1946	1965
25°	1929	1949	1970
30°	1912	1944	1976
35°	1894	1939	1984
40°	1872	1937	2009
45°	1841	1937	2054
50°	1800	1949	2116
55°	1755	1980	2211
60°	1681	2019	2333
65°	1573	2090	2476
70°	1431	2187	2664
75°	1213	2307	2783
80°	957	2322	2251
85°	707	1766	1978



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.6	3.0
10°-20°	395.9	8.6
20°-30°	605.5	13.1
30°-40°	740.2	16.0
40°-50°	788.9	17.1
50°-60°	754.3	16.4
60°-70°	639.0	13.9
70°-80°	429.4	9.3
80°-90°	121.2	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°	1139.0	24.7
0°-40°	1879.2	40.7
0°-60°	3422.3	74.2
0°-90°	4611.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4611.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1450	1450	1450	1450	1450	
5°	1450	1448	1441	1448	1448	138
15°	1400	1400	1398	1409	1407	395
25°	1299	1304	1313	1324	1327	599
35°	1153	1162	1180	1203	1208	722
45°	968	984	1018	1061	1080	746
55°	748	776	844	910	942	666
65°	494	544	656	743	778	491
75°	233	318	444	519	535	250
85°	46	94	114	124	128	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1450.3	1450.3	1450.3	1450.3	1450.3
2.5°	1452.6	1452.6	1445.7	1450.3	1450.3
5°	1450.3	1448.0	1441.1	1448.0	1448.0
7.5°	1443.4	1441.1	1436.6	1443.4	1441.1
10°	1429.7	1429.7	1425.1	1432.0	1432.0
12.5°	1418.3	1416.0	1413.7	1422.8	1420.5
15°	1400.0	1400.0	1397.7	1409.1	1406.8
17.5°	1377.1	1379.4	1381.7	1390.8	1393.1
20°	1351.9	1356.5	1358.8	1372.5	1372.5
22.5°	1329.0	1331.3	1335.9	1349.6	1349.6
25°	1299.3	1303.9	1313.0	1324.5	1326.8
27.5°	1269.6	1271.9	1283.3	1299.3	1301.6
30°	1230.7	1237.5	1251.3	1269.6	1271.9
32.5°	1196.4	1203.2	1219.2	1237.5	1242.1
35°	1152.9	1162.1	1180.4	1203.2	1207.8
37.5°	1114.0	1120.9	1143.8	1168.9	1175.8
40°	1066.0	1079.7	1102.6	1132.3	1143.8
42.5°	1017.9	1031.7	1059.1	1098.0	1111.7
45°	967.6	983.6	1017.9	1061.4	1079.7
47.5°	917.3	935.6	974.5	1024.8	1045.4
50°	860.1	883.0	931.0	988.2	1011.1
52.5°	805.2	832.7	885.3	949.3	979.1
55°	748.0	775.5	844.1	910.4	942.5
57.5°	684.0	720.6	796.1	871.5	905.9
60°	624.5	658.8	750.3	832.7	867.0
62.5°	560.4	606.2	704.6	791.5	825.8
65°	494.1	544.4	656.5	743.4	777.8
67.5°	434.6	489.5	608.5	695.4	729.7
70°	363.7	432.3	555.9	642.8	677.1
72.5°	297.4	372.9	501.0	585.6	617.6
75°	233.3	318.0	443.8	519.3	535.3
77.5°	173.9	263.1	384.3	416.3	404.9
80°	123.5	210.5	299.7	283.7	290.5
82.5°	80.1	160.1	185.3	210.5	217.3
85°	45.8	93.8	114.4	123.5	128.1
87.5°	20.6	34.3	45.8	45.8	43.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)