

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: P391734

Luminaire Tested: **24CZ2-80VHE-RDP-UNV-L950-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: P391734
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-L950-CD1-SDWPD1-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: 4836.1 lumens
Efficiency: N/A
Efficacy: 89.9 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

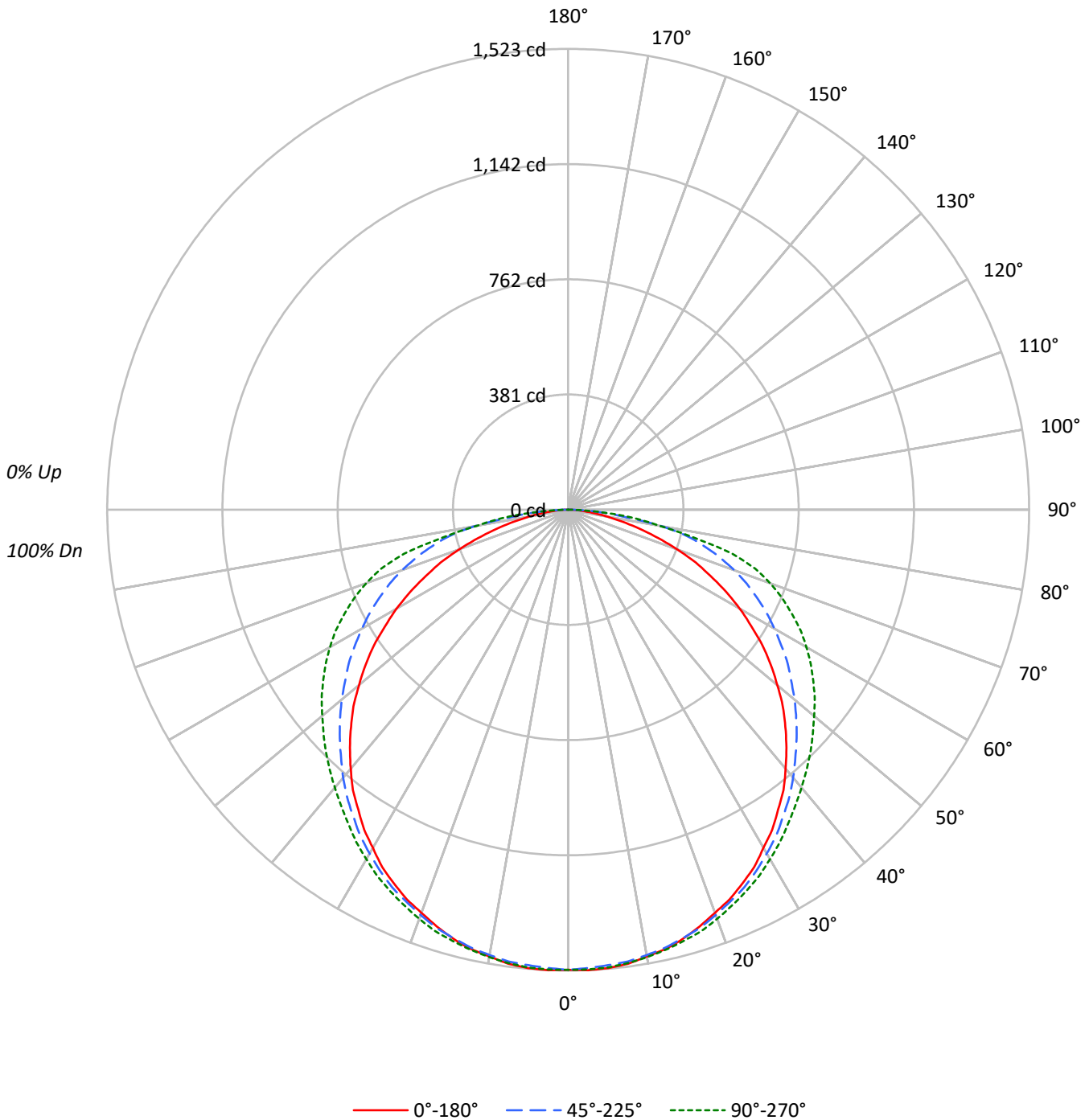
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2046	2046	2046
5°	2054	2041	2051
10°	2048	2042	2052
15°	2045	2042	2055
20°	2030	2040	2061
25°	2023	2044	2066
30°	2005	2039	2072
35°	1986	2033	2080
40°	1963	2031	2107
45°	1931	2031	2154
50°	1888	2044	2219
55°	1840	2076	2318
60°	1762	2117	2446
65°	1649	2192	2597
70°	1500	2293	2793
75°	1272	2419	2918
80°	1003	2435	2360
85°	741	1851	2073



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.3	3.0
10°-20°	415.2	8.6
20°-30°	634.9	13.1
30°-40°	776.2	16.0
40°-50°	827.2	17.1
50°-60°	790.9	16.4
60°-70°	670.0	13.9
70°-80°	450.3	9.3
80°-90°	127.0	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°	1194.4	24.7
0°-40°	1970.5	40.7
0°-60°	3588.7	74.2
0°-90°	4836.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4836.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1521	1521	1521	1521	1521	
5°	1521	1518	1511	1518	1518	144
15°	1468	1468	1466	1478	1475	414
25°	1362	1367	1377	1389	1391	628
35°	1209	1219	1238	1262	1266	757
45°	1015	1032	1067	1113	1132	783
55°	784	813	885	955	988	699
65°	518	571	688	780	816	514
75°	245	333	465	544	561	262
85°	48	98	120	130	134	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1520.8	1520.8	1520.8	1520.8	1520.8
2.5°	1523.2	1523.2	1516.0	1520.8	1520.8
5°	1520.8	1518.4	1511.2	1518.4	1518.4
7.5°	1513.6	1511.2	1506.4	1513.6	1511.2
10°	1499.2	1499.2	1494.4	1501.6	1501.6
12.5°	1487.2	1484.8	1482.4	1492.0	1489.6
15°	1468.0	1468.0	1465.6	1477.6	1475.2
17.5°	1444.1	1446.5	1448.9	1458.4	1460.8
20°	1417.7	1422.5	1424.9	1439.3	1439.3
22.5°	1393.7	1396.1	1400.9	1415.3	1415.3
25°	1362.5	1367.3	1376.9	1388.9	1391.3
27.5°	1331.3	1333.7	1345.7	1362.5	1364.9
30°	1290.5	1297.7	1312.1	1331.3	1333.7
32.5°	1254.6	1261.7	1278.5	1297.7	1302.5
35°	1209.0	1218.6	1237.8	1261.7	1266.5
37.5°	1168.2	1175.4	1199.4	1225.8	1233.0
40°	1117.8	1132.2	1156.2	1187.4	1199.4
42.5°	1067.4	1081.8	1110.6	1151.4	1165.8
45°	1014.7	1031.5	1067.4	1113.0	1132.2
47.5°	961.9	981.1	1021.9	1074.6	1096.2
50°	901.9	925.9	976.3	1036.3	1060.3
52.5°	844.4	873.1	928.3	995.5	1026.7
55°	784.4	813.2	885.1	954.7	988.3
57.5°	717.2	755.6	834.8	913.9	949.9
60°	654.9	690.8	786.8	873.1	909.1
62.5°	587.7	635.7	738.8	830.0	866.0
65°	518.1	570.9	688.4	779.6	815.6
67.5°	455.8	513.3	638.1	729.2	765.2
70°	381.4	453.4	582.9	674.1	710.0
72.5°	311.8	391.0	525.3	614.1	647.7
75°	244.7	333.4	465.4	544.5	561.3
77.5°	182.3	275.9	403.0	436.6	424.6
80°	129.5	220.7	314.2	297.4	304.6
82.5°	84.0	167.9	194.3	220.7	227.9
85°	48.0	98.3	119.9	129.5	134.3
87.5°	21.6	36.0	48.0	48.0	45.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)