

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: P391778

Luminaire Tested: **24CZ2-85VHE-RDP-UNV-L935-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: P391778
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: 24CZ2-85VHE-RDP-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4890.3 lumens
Efficiency: N/A
Efficacy: 84.5 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

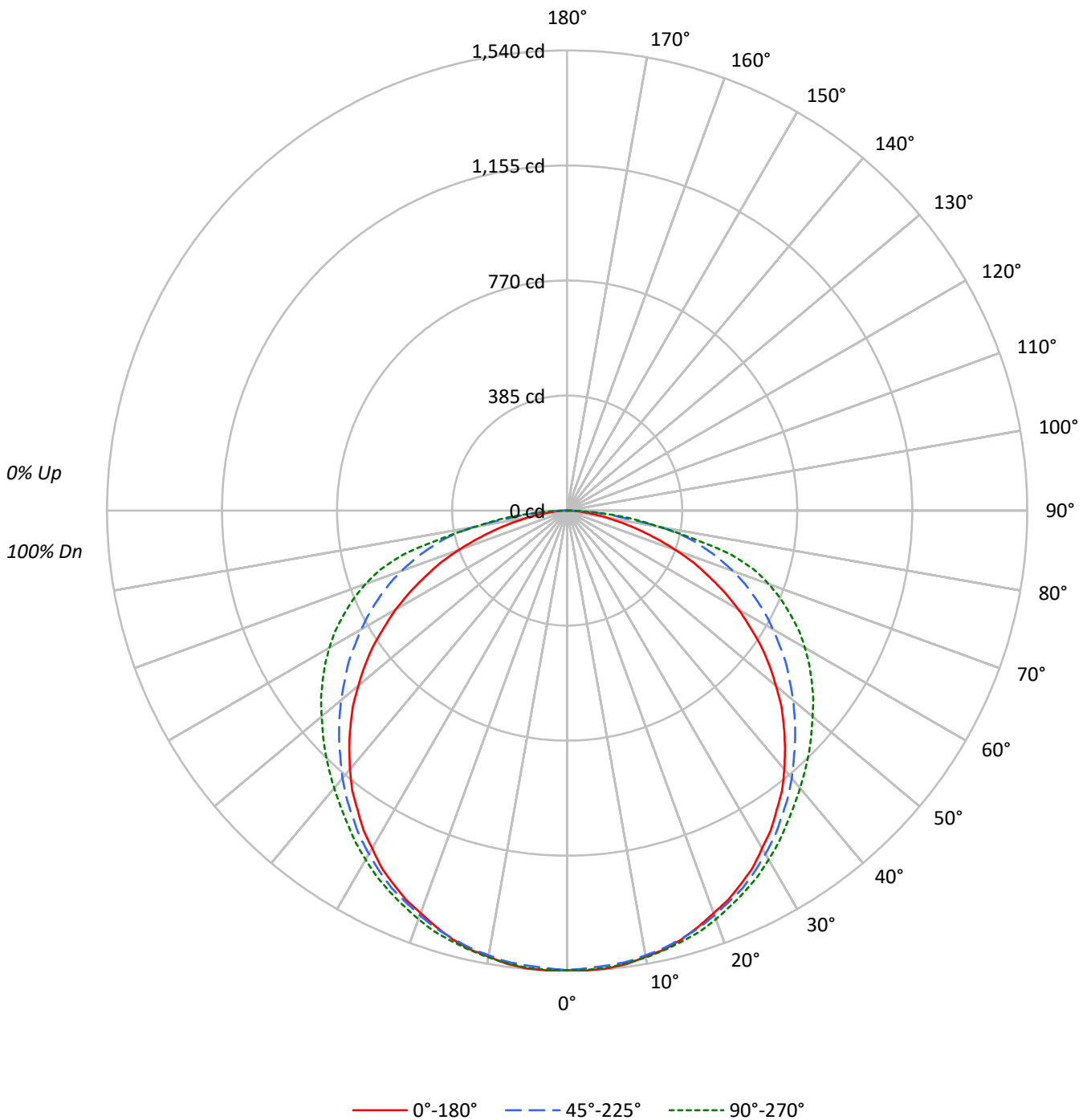
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2069	2069	2069
5°	2077	2064	2074
10°	2071	2065	2075
15°	2068	2064	2078
20°	2053	2063	2084
25°	2045	2067	2089
30°	2027	2061	2095
35°	2008	2056	2104
40°	1985	2054	2130
45°	1952	2054	2179
50°	1909	2066	2244
55°	1861	2100	2344
60°	1782	2141	2474
65°	1668	2216	2626
70°	1517	2319	2825
75°	1286	2446	2951
80°	1015	2462	2387
85°	749	1873	2096



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.9	3.0
10°-20°	419.8	8.6
20°-30°	642.0	13.1
30°-40°	784.9	16.0
40°-50°	836.5	17.1
50°-60°	799.8	16.4
60°-70°	677.5	13.9
70°-80°	455.4	9.3
80°-90°	128.5	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°	1207.8	24.7
0°-40°	1992.6	40.7
0°-60°	3628.9	74.2
0°-90°	4890.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4890.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1538	1538	1538	1538	1538	
5°	1538	1535	1528	1535	1535	146
15°	1484	1484	1482	1494	1492	419
25°	1378	1383	1392	1404	1407	635
35°	1222	1232	1252	1276	1281	766
45°	1026	1043	1079	1126	1145	791
55°	793	822	895	965	999	706
65°	524	577	696	788	825	520
75°	247	337	471	551	568	265
85°	48	100	121	131	136	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1537.9	1537.9	1537.9	1537.9	1537.9
2.5°	1540.3	1540.3	1533.0	1537.9	1537.9
5°	1537.9	1535.4	1528.2	1535.4	1535.4
7.5°	1530.6	1528.2	1523.3	1530.6	1528.2
10°	1516.0	1516.0	1511.2	1518.5	1518.5
12.5°	1503.9	1501.5	1499.0	1508.8	1506.3
15°	1484.5	1484.5	1482.1	1494.2	1491.8
17.5°	1460.2	1462.7	1465.1	1474.8	1477.2
20°	1433.6	1438.4	1440.8	1455.4	1455.4
22.5°	1409.3	1411.7	1416.6	1431.1	1431.1
25°	1377.8	1382.6	1392.3	1404.4	1406.9
27.5°	1346.2	1348.7	1360.8	1377.8	1380.2
30°	1305.0	1312.3	1326.8	1346.2	1348.7
32.5°	1268.6	1275.9	1292.9	1312.3	1317.1
35°	1222.5	1232.2	1251.6	1275.9	1280.7
37.5°	1181.3	1188.6	1212.8	1239.5	1246.8
40°	1130.4	1144.9	1169.2	1200.7	1212.8
42.5°	1079.4	1094.0	1123.1	1164.3	1178.9
45°	1026.0	1043.0	1079.4	1125.5	1144.9
47.5°	972.7	992.1	1033.3	1086.7	1108.5
50°	912.0	936.3	987.2	1047.9	1072.1
52.5°	853.8	882.9	938.7	1006.6	1038.2
55°	793.2	822.3	895.1	965.4	999.4
57.5°	725.3	764.1	844.1	924.2	960.6
60°	662.2	698.6	795.6	882.9	919.3
62.5°	594.3	642.8	747.1	839.3	875.7
65°	523.9	577.3	696.2	788.3	824.7
67.5°	460.9	519.1	645.2	737.4	773.8
70°	385.7	458.4	589.4	681.6	718.0
72.5°	315.3	395.4	531.2	621.0	654.9
75°	247.4	337.2	470.6	550.6	567.6
77.5°	184.3	278.9	407.5	441.5	429.3
80°	131.0	223.2	317.8	300.8	308.1
82.5°	84.9	169.8	196.5	223.2	230.4
85°	48.5	99.5	121.3	131.0	135.8
87.5°	21.8	36.4	48.5	48.5	46.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)