

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: P391776

Luminaire Tested: **24CZ2-85VHE-RDP-UNV-L935-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: P391776
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-SDWPD1-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: 4771.4 lumens
Efficiency: N/A
Efficacy: 82.4 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

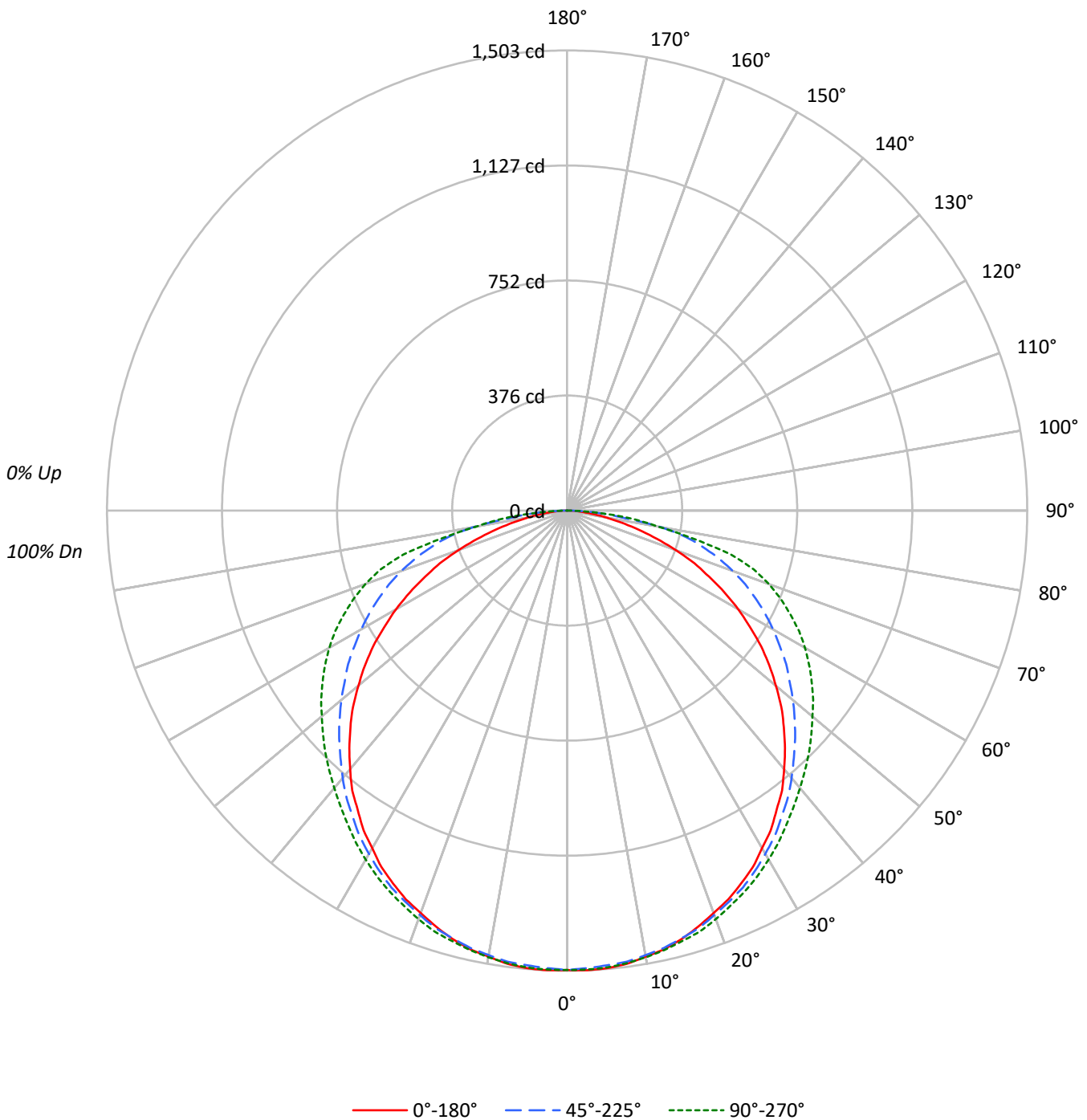
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2019	2019	2019
5°	2027	2014	2023
10°	2021	2014	2024
15°	2018	2014	2027
20°	2003	2013	2033
25°	1996	2017	2038
30°	1978	2011	2044
35°	1959	2006	2053
40°	1937	2004	2078
45°	1905	2004	2126
50°	1863	2016	2190
55°	1815	2049	2287
60°	1739	2089	2414
65°	1628	2162	2562
70°	1480	2262	2756
75°	1255	2387	2879
80°	990	2402	2329
85°	730	1826	2046



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.3	3.0
10°-20°	409.6	8.6
20°-30°	626.4	13.1
30°-40°	765.8	16.0
40°-50°	816.2	17.1
50°-60°	780.4	16.4
60°-70°	661.1	13.9
70°-80°	444.3	9.3
80°-90°	125.3	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°	1178.4	24.7
0°-40°	1944.2	40.7
0°-60°	3540.7	74.2
0°-90°	4771.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4771.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1500	1500	1500	1500	1500	
5°	1500	1498	1491	1498	1498	143
15°	1448	1448	1446	1458	1456	408
25°	1344	1349	1358	1370	1373	620
35°	1193	1202	1221	1245	1250	747
45°	1001	1018	1053	1098	1117	772
55°	774	802	873	942	975	689
65°	511	563	679	769	805	508
75°	241	329	459	537	554	258
85°	47	97	118	128	132	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1500.5	1500.5	1500.5	1500.5	1500.5
2.5°	1502.8	1502.8	1495.7	1500.5	1500.5
5°	1500.5	1498.1	1491.0	1498.1	1498.1
7.5°	1493.4	1491.0	1486.3	1493.4	1491.0
10°	1479.2	1479.2	1474.4	1481.5	1481.5
12.5°	1467.3	1465.0	1462.6	1472.1	1469.7
15°	1448.4	1448.4	1446.0	1457.9	1455.5
17.5°	1424.7	1427.1	1429.5	1438.9	1441.3
20°	1398.7	1403.4	1405.8	1420.0	1420.0
22.5°	1375.0	1377.4	1382.1	1396.3	1396.3
25°	1344.3	1349.0	1358.5	1370.3	1372.7
27.5°	1313.5	1315.9	1327.7	1344.3	1346.6
30°	1273.3	1280.4	1294.6	1313.5	1315.9
32.5°	1237.8	1244.9	1261.4	1280.4	1285.1
35°	1192.8	1202.3	1221.2	1244.9	1249.6
37.5°	1152.6	1159.7	1183.3	1209.4	1216.5
40°	1102.9	1117.1	1140.7	1171.5	1183.3
42.5°	1053.2	1067.4	1095.8	1136.0	1150.2
45°	1001.1	1017.7	1053.2	1098.1	1117.1
47.5°	949.0	968.0	1008.2	1060.3	1081.6
50°	889.9	913.5	963.2	1022.4	1046.1
52.5°	833.1	861.5	915.9	982.2	1012.9
55°	773.9	802.3	873.3	941.9	975.1
57.5°	707.6	745.5	823.6	901.7	937.2
60°	646.1	681.6	776.3	861.5	897.0
62.5°	579.8	627.2	728.9	818.9	854.4
65°	511.2	563.3	679.2	769.2	804.7
67.5°	449.7	506.5	629.5	719.5	755.0
70°	376.3	447.3	575.1	665.0	700.5
72.5°	307.7	385.8	518.3	605.9	639.0
75°	241.4	329.0	459.1	537.2	553.8
77.5°	179.9	272.2	397.6	430.7	418.9
80°	127.8	217.7	310.0	293.5	300.6
82.5°	82.8	165.7	191.7	217.7	224.8
85°	47.3	97.0	118.3	127.8	132.5
87.5°	21.3	35.5	47.3	47.3	45.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)