

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: P389139

Luminaire Tested: **24CZ2-80VHE-SQR-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: P389139
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-80VHE-SQR-UNV-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6439.3 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

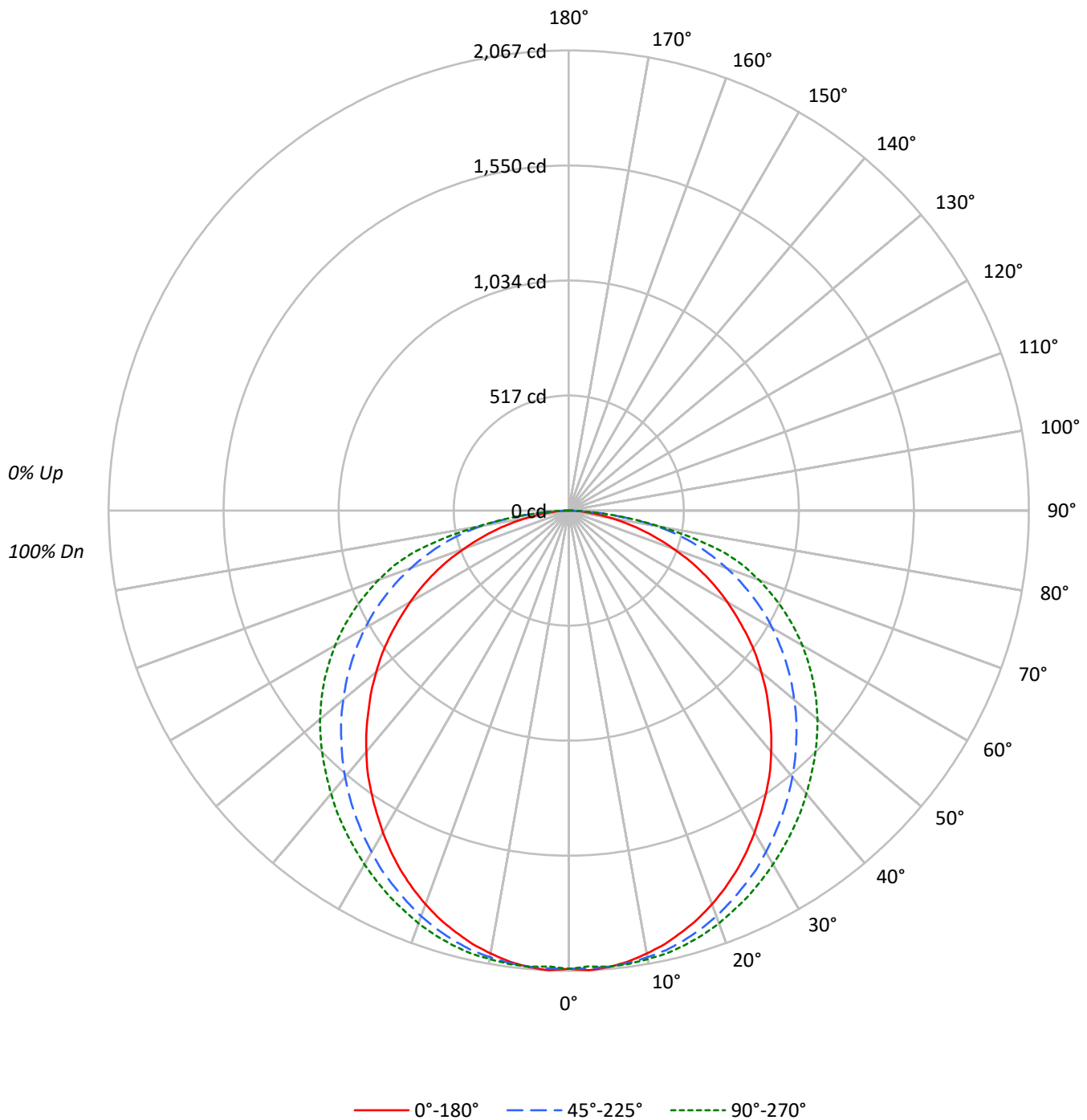
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P389139

CATALOG NUMBER: 24CZ2-80VHE-SQR-UNV-L935-CD1-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P389139

CATALOG NUMBER: 24CZ2-80VHE-SQR-UNV-L935-CD1-SDWPD1-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	108	103	98	94	105	100	96	92		96	93	89		92	89	87		89	86	84
2	98	89	81	75	95	87	80	74		83	78	73		80	75	71		77	73	69
3	89	77	69	62	86	76	68	61		73	66	60		70	64	59		67	62	58
4	81	68	59	52	78	67	58	52		64	57	51		62	55	50		60	54	49
5	74	61	51	44	72	60	51	44		57	50	44		55	49	43		54	48	43
6	68	55	45	39	66	54	45	38		52	44	38		50	43	38		48	42	37
7	63	49	40	34	62	49	40	34		47	39	34		45	39	33		44	38	33
8	59	45	36	30	57	44	36	30		43	35	30		42	35	30		40	34	30
9	55	41	33	27	54	41	33	27		39	32	27		38	32	27		37	31	27
10	52	38	30	25	50	37	30	24		36	29	24		36	29	24		35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2769	2769	2769
5°	2780	2777	2777
10°	2760	2783	2795
15°	2731	2784	2814
20°	2694	2777	2825
25°	2648	2762	2835
30°	2593	2752	2851
35°	2539	2745	2878
40°	2484	2745	2917
45°	2420	2751	2974
50°	2363	2768	3053
55°	2294	2798	3147
60°	2214	2844	3261
65°	2119	2897	3398
70°	1966	2970	3572
75°	1779	3073	3736
80°	1499	3081	3212
85°	1149	2331	2331



TEST NUMBER: P389139

CATALOG NUMBER: 24CZ2-80VHE-SQR-UNV-L935-CD1-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.4	3.0
10°-20°	562.1	8.7
20°-30°	853.8	13.3
30°-40°	1038.6	16.1
40°-50°	1105.8	17.2
50°-60°	1053.2	16.4
60°-70°	880.7	13.7
70°-80°	587.2	9.1
80°-90°	162.5	2.5
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°	1611.4	25.0
0°-40°	2649.9	41.2
0°-60°	4808.9	74.7
0°-90°	6439.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6439.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2058	2058	2058	2058	2058	
5°	2058	2046	2056	2056	2056	195
15°	1960	1965	1999	2014	2020	553
25°	1784	1807	1861	1892	1910	821
35°	1546	1590	1671	1727	1752	967
45°	1272	1340	1446	1527	1563	983
55°	978	1063	1193	1297	1342	874
65°	666	763	910	1023	1067	658
75°	342	451	591	691	719	363
85°	74	138	151	149	151	90
90°	0	0	0	0	0	



TEST NUMBER: P389139

CATALOG NUMBER: 24CZ2-80VHE-SQR-UNV-L935-CD1-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2058.3	2058.3	2058.3	2058.3	2058.3
2.5°	2066.8	2051.9	2058.3	2058.3	2049.8
5°	2058.3	2045.6	2056.2	2056.2	2056.2
7.5°	2043.4	2032.8	2049.8	2054.1	2054.1
10°	2020.0	2015.8	2037.1	2043.4	2045.6
12.5°	1994.5	1992.4	2022.2	2030.7	2037.1
15°	1960.5	1964.8	1998.8	2013.7	2020.0
17.5°	1924.4	1932.9	1971.1	1992.4	1998.8
20°	1881.8	1894.6	1939.2	1960.5	1973.3
22.5°	1835.0	1854.2	1901.0	1926.5	1941.4
25°	1784.0	1807.4	1860.6	1892.5	1909.5
27.5°	1728.7	1758.5	1820.2	1856.3	1873.3
30°	1669.2	1703.2	1771.3	1813.8	1835.0
32.5°	1607.5	1647.9	1722.3	1769.1	1794.6
35°	1545.9	1590.5	1671.3	1726.6	1752.1
37.5°	1484.2	1528.9	1618.2	1677.7	1709.6
40°	1414.0	1467.2	1562.9	1628.8	1660.7
42.5°	1346.0	1403.4	1505.5	1577.8	1611.8
45°	1271.6	1339.6	1445.9	1526.7	1562.9
47.5°	1203.5	1271.6	1386.4	1471.4	1511.8
50°	1129.1	1201.4	1322.6	1416.2	1458.7
52.5°	1056.8	1131.2	1258.8	1358.7	1401.3
55°	978.1	1063.2	1192.9	1297.1	1341.7
57.5°	899.4	990.9	1124.8	1233.3	1277.9
60°	822.9	916.5	1056.8	1165.2	1212.0
62.5°	746.4	839.9	986.6	1097.2	1141.9
65°	665.5	763.4	910.1	1022.8	1067.4
67.5°	584.7	686.8	833.5	946.2	988.8
70°	499.7	608.1	754.9	865.4	908.0
72.5°	421.0	529.5	674.1	782.5	822.9
75°	342.3	450.8	591.1	691.1	718.7
77.5°	265.8	374.2	499.7	565.6	572.0
80°	193.5	295.6	397.6	416.8	414.6
82.5°	129.7	221.1	274.3	276.4	282.8
85°	74.4	138.2	151.0	148.8	151.0
87.5°	29.8	48.9	42.5	31.9	31.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)