

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: P388992

Luminaire Tested: **24CZ2-80VHE-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: P388992
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-80VHE-UNV-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6705.0 lumens
Efficiency: N/A
Efficacy: 124.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

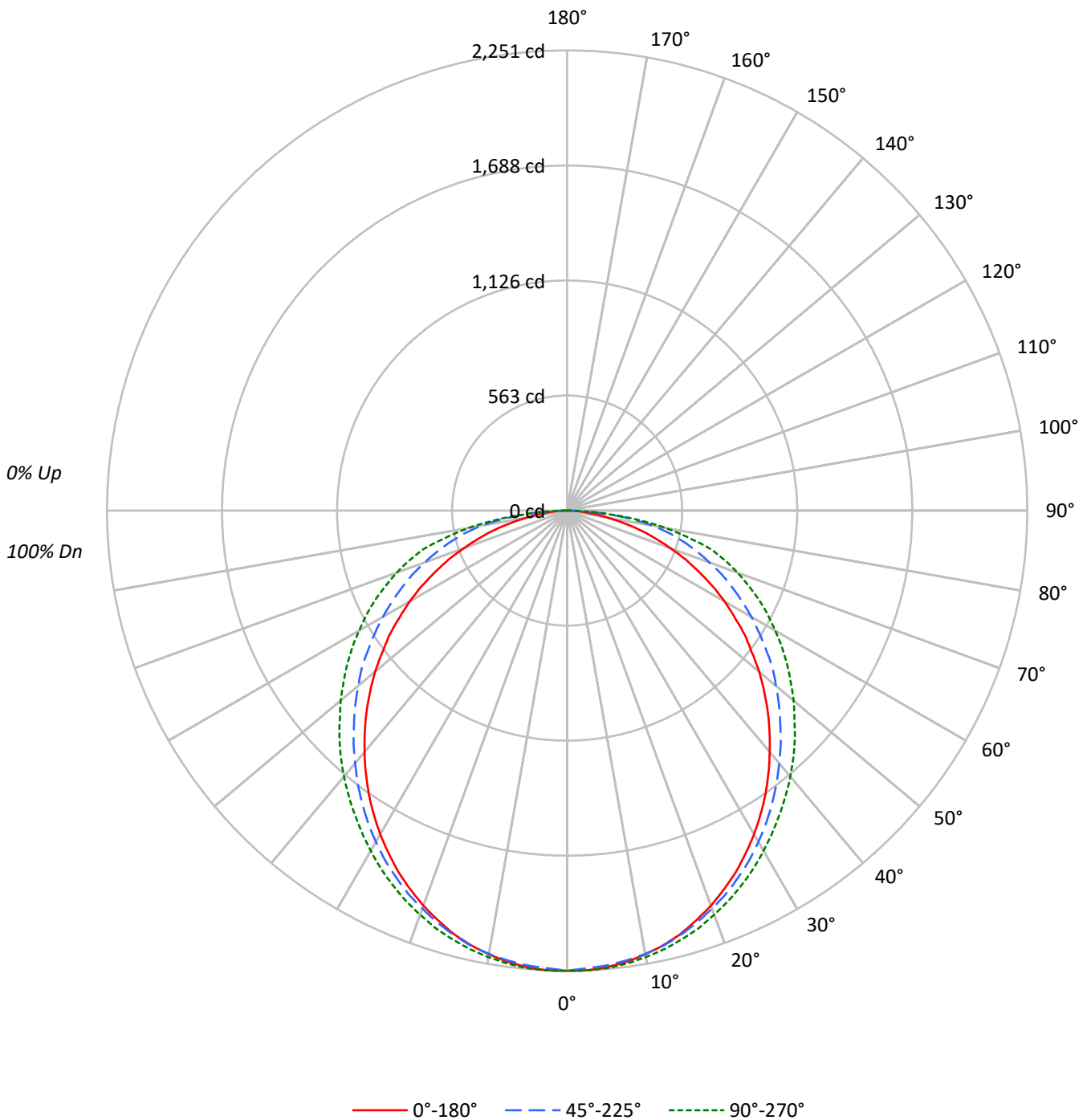
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3029	3029	3029
5°	3028	3016	3034
10°	3011	3008	3030
15°	2986	2992	3024
20°	2945	2967	3012
25°	2897	2940	3000
30°	2840	2907	2986
35°	2779	2871	2977
40°	2708	2834	2983
45°	2640	2806	2998
50°	2567	2792	3026
55°	2488	2787	3081
60°	2391	2800	3161
65°	2266	2843	3299
70°	2104	2914	3486
75°	1919	3059	3781
80°	1578	3295	3780
85°	1209	3040	3247



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.9	3.2
10°-20°	607.8	9.1
20°-30°	914.7	13.6
30°-40°	1096.2	16.3
40°-50°	1142.3	17.0
50°-60°	1062.8	15.9
60°-70°	875.3	13.1
70°-80°	596.1	8.9
80°-90°	196.8	2.9
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°	1735.4	25.9
0°-40°	2831.6	42.2
0°-60°	5036.7	75.1
0°-90°	6705.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6705.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2251	2251	2251	2251	2251	
5°	2242	2242	2233	2244	2247	213
15°	2144	2146	2148	2168	2171	604
25°	1951	1960	1980	2014	2021	898
35°	1692	1712	1748	1795	1813	1057
45°	1387	1416	1475	1548	1575	1070
55°	1061	1096	1188	1282	1314	945
65°	712	772	893	998	1036	706
75°	369	452	588	694	727	389
85°	78	152	197	210	210	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2251.2	2251.2	2251.2	2251.2	2251.2
2.5°	2251.2	2251.2	2240.0	2251.2	2251.2
5°	2242.2	2242.2	2233.3	2244.5	2246.7
7.5°	2226.6	2228.8	2219.9	2233.3	2235.5
10°	2204.2	2206.4	2201.9	2215.4	2217.6
12.5°	2177.3	2179.6	2179.6	2195.2	2197.5
15°	2143.8	2146.0	2148.2	2168.4	2170.6
17.5°	2101.3	2108.0	2112.4	2137.1	2141.5
20°	2056.5	2063.2	2072.2	2099.0	2103.5
22.5°	2005.0	2014.0	2029.6	2058.7	2065.4
25°	1951.3	1960.3	1980.4	2014.0	2020.7
27.5°	1890.9	1904.3	1928.9	1964.7	1973.7
30°	1828.2	1841.7	1870.8	1908.8	1922.2
32.5°	1761.1	1779.0	1812.6	1855.1	1868.5
35°	1691.7	1711.9	1747.7	1794.7	1812.6
37.5°	1617.9	1640.3	1682.8	1734.3	1756.6
40°	1541.8	1568.7	1613.4	1673.8	1698.5
42.5°	1465.7	1490.3	1546.3	1611.2	1638.0
45°	1387.4	1416.5	1474.7	1548.5	1575.4
47.5°	1306.8	1335.9	1405.3	1483.6	1508.2
50°	1226.3	1255.4	1333.7	1416.5	1445.6
52.5°	1139.0	1177.1	1266.6	1349.4	1378.5
55°	1060.7	1096.5	1188.2	1282.2	1313.6
57.5°	971.2	1013.7	1114.4	1212.9	1246.4
60°	888.4	933.1	1040.6	1141.3	1174.8
62.5°	803.4	852.6	966.7	1069.6	1107.7
65°	711.6	772.0	892.9	998.0	1036.1
67.5°	628.8	691.5	819.0	926.4	960.0
70°	534.8	610.9	740.7	848.1	886.2
72.5°	454.3	530.3	666.9	772.0	810.1
75°	369.2	452.0	588.5	693.7	727.3
77.5°	284.2	375.9	512.4	593.0	604.2
80°	203.6	299.9	425.2	472.2	487.8
82.5°	143.2	230.5	313.3	344.6	353.6
85°	78.3	152.2	196.9	210.3	210.3
87.5°	33.6	64.9	78.3	80.6	82.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)