

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: P388989

Luminaire Tested: **24CZ2-80VHE-UNV-L930-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: P388989
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-L930-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6543.1 lumens
Efficiency: N/A
Efficacy: 121.6 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

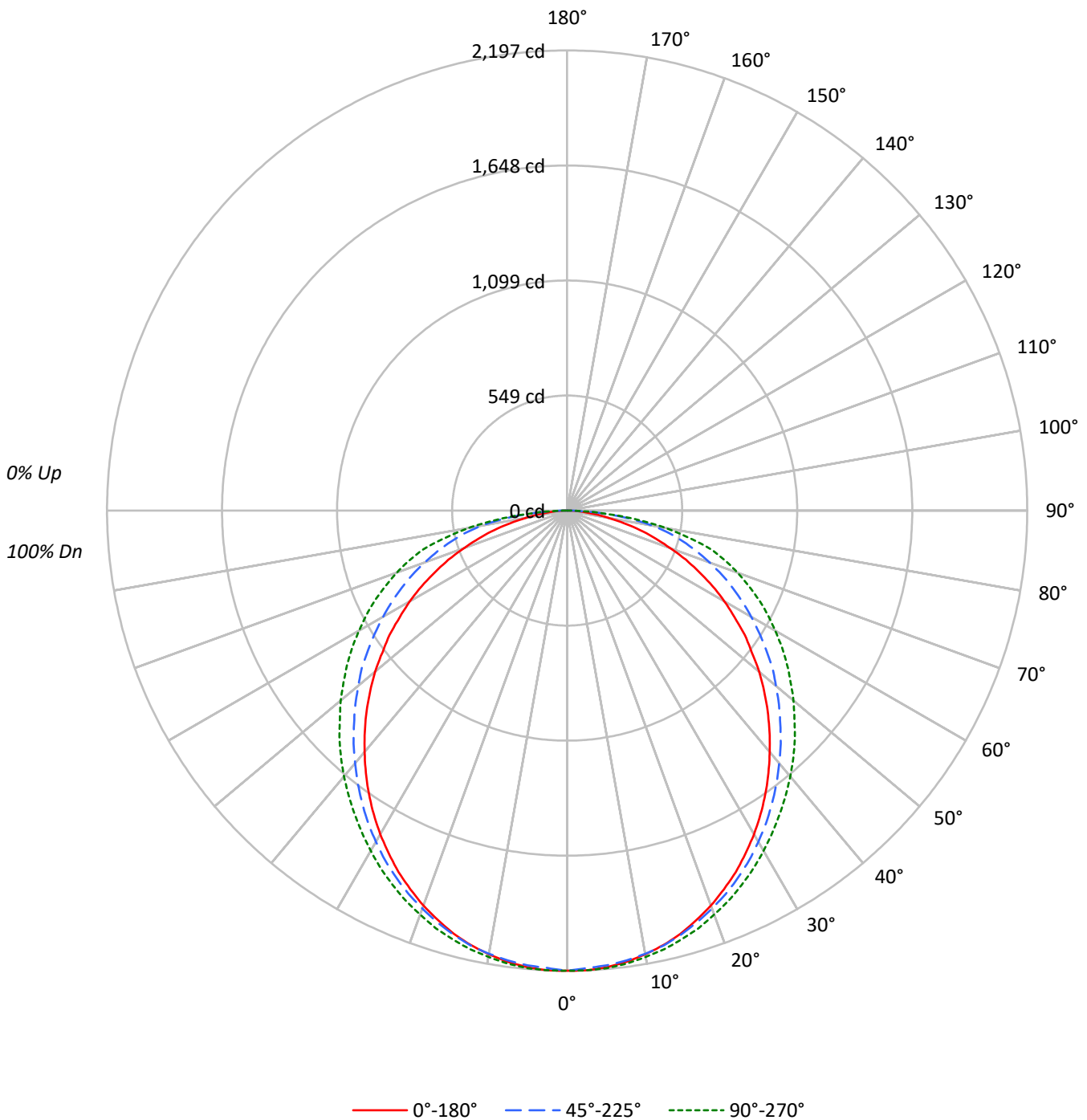
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2956	2956	2956
5°	2955	2944	2961
10°	2939	2936	2957
15°	2914	2920	2951
20°	2873	2895	2939
25°	2827	2869	2927
30°	2772	2836	2914
35°	2712	2801	2905
40°	2643	2765	2911
45°	2576	2738	2925
50°	2505	2724	2953
55°	2428	2720	3007
60°	2333	2732	3085
65°	2211	2774	3219
70°	2053	2843	3402
75°	1873	2986	3689
80°	1540	3215	3689
85°	1179	2967	3169



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.8	3.2
10°-20°	593.2	9.1
20°-30°	892.6	13.6
30°-40°	1069.7	16.3
40°-50°	1114.7	17.0
50°-60°	1037.1	15.9
60°-70°	854.2	13.1
70°-80°	581.8	8.9
80°-90°	192.1	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°	1693.5	25.9
0°-40°	2763.2	42.2
0°-60°	4915.1	75.1
0°-90°	6543.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6543.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2197	2197	2197	2197	2197	
5°	2188	2188	2179	2190	2192	208
15°	2092	2094	2096	2116	2118	589
25°	1904	1913	1933	1965	1972	877
35°	1651	1670	1706	1751	1769	1032
45°	1354	1382	1439	1511	1537	1044
55°	1035	1070	1160	1251	1282	923
65°	694	753	871	974	1011	689
75°	360	441	574	677	710	380
85°	76	148	192	205	205	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2196.8	2196.8	2196.8	2196.8	2196.8
2.5°	2196.8	2196.8	2185.9	2196.8	2196.8
5°	2188.1	2188.1	2179.4	2190.3	2192.5
7.5°	2172.8	2175.0	2166.3	2179.4	2181.5
10°	2151.0	2153.1	2148.8	2161.9	2164.1
12.5°	2124.8	2126.9	2126.9	2142.2	2144.4
15°	2092.0	2094.2	2096.4	2116.0	2118.2
17.5°	2050.5	2057.1	2061.4	2085.5	2089.8
20°	2006.8	2013.4	2022.1	2048.3	2052.7
22.5°	1956.6	1965.3	1980.6	2009.0	2015.6
25°	1904.2	1912.9	1932.6	1965.3	1971.9
27.5°	1845.2	1858.3	1882.4	1917.3	1926.0
30°	1784.1	1797.2	1825.6	1862.7	1875.8
32.5°	1718.6	1736.1	1768.8	1810.3	1823.4
35°	1650.9	1670.5	1705.5	1751.3	1768.8
37.5°	1578.8	1600.7	1642.2	1692.4	1714.2
40°	1504.6	1530.8	1574.5	1633.4	1657.4
42.5°	1430.3	1454.4	1509.0	1572.3	1598.5
45°	1353.9	1382.3	1439.1	1511.1	1537.3
47.5°	1275.3	1303.7	1371.4	1447.8	1471.8
50°	1196.7	1225.1	1301.5	1382.3	1410.7
52.5°	1111.5	1148.6	1236.0	1316.8	1345.2
55°	1035.1	1070.0	1159.6	1251.3	1281.8
57.5°	947.7	989.2	1087.5	1183.6	1216.3
60°	866.9	910.6	1015.4	1113.7	1146.5
62.5°	784.0	832.0	943.4	1043.8	1080.9
65°	694.4	753.4	871.3	973.9	1011.1
67.5°	613.6	674.8	799.2	904.1	936.8
70°	521.9	596.2	722.8	827.6	864.8
72.5°	443.3	517.5	650.7	753.4	790.5
75°	360.3	441.1	574.3	677.0	709.7
77.5°	277.3	366.9	500.1	578.7	589.6
80°	198.7	292.6	414.9	460.8	476.1
82.5°	139.8	224.9	305.7	336.3	345.0
85°	76.4	148.5	192.2	205.3	205.3
87.5°	32.8	63.3	76.4	78.6	80.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)