

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: P388991

Luminaire Tested: **24CZ2-80VHE-UNV-L930-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: P388991
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-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

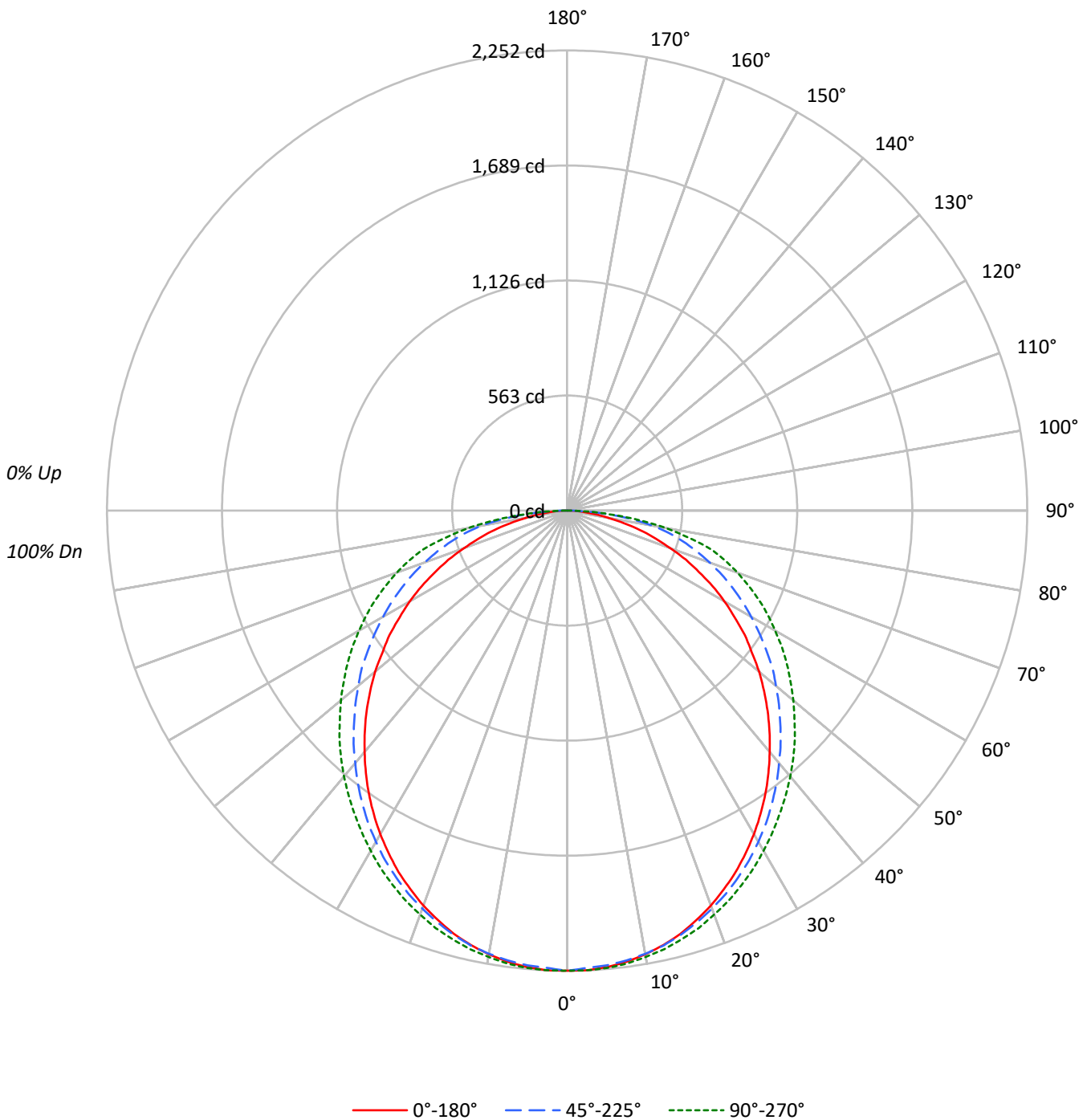
Lumens per Lamp: N/A
Luminaire Lumens: 6706.2 lumens
Efficiency: N/A
Efficacy: 124.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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			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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82	82	
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67	67	
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56	56	
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48	48	
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41	41	
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36	36	
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32	32	
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28	28	
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25	25	
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23	23	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3030	3030	3030
5°	3029	3017	3035
10°	3012	3009	3030
15°	2987	2993	3024
20°	2945	2967	3012
25°	2897	2941	3000
30°	2841	2907	2987
35°	2779	2871	2978
40°	2709	2834	2984
45°	2641	2806	2998
50°	2567	2792	3026
55°	2489	2788	3082
60°	2391	2801	3162
65°	2266	2843	3299
70°	2104	2914	3487
75°	1920	3060	3781
80°	1578	3295	3780
85°	1209	3041	3248



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.9	3.2
10°-20°	607.9	9.1
20°-30°	914.9	13.6
30°-40°	1096.4	16.3
40°-50°	1142.5	17.0
50°-60°	1063.0	15.9
60°-70°	875.5	13.1
70°-80°	596.2	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°	1735.7	25.9
0°-40°	2832.1	42.2
0°-60°	5037.6	75.1
0°-90°	6706.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6706.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2252	2252	2252	2252	2252	
5°	2243	2243	2234	2245	2247	213
15°	2144	2146	2149	2169	2171	604
25°	1952	1961	1981	2014	2021	898
35°	1692	1712	1748	1795	1813	1058
45°	1388	1417	1475	1549	1576	1070
55°	1061	1097	1188	1282	1314	946
65°	712	772	893	998	1036	706
75°	369	452	589	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°	2251.6	2251.6	2251.6	2251.6	2251.6
2.5°	2251.6	2251.6	2240.4	2251.6	2251.6
5°	2242.6	2242.6	2233.7	2244.9	2247.1
7.5°	2227.0	2229.2	2220.2	2233.7	2235.9
10°	2204.6	2206.8	2202.3	2215.8	2218.0
12.5°	2177.7	2180.0	2180.0	2195.6	2197.9
15°	2144.2	2146.4	2148.6	2168.8	2171.0
17.5°	2101.6	2108.3	2112.8	2137.4	2141.9
20°	2056.9	2063.6	2072.5	2099.4	2103.9
22.5°	2005.4	2014.3	2030.0	2059.1	2065.8
25°	1951.7	1960.6	1980.8	2014.3	2021.1
27.5°	1891.2	1904.7	1929.3	1965.1	1974.1
30°	1828.6	1842.0	1871.1	1909.1	1922.6
32.5°	1761.4	1779.3	1812.9	1855.4	1868.9
35°	1692.0	1712.2	1748.0	1795.0	1812.9
37.5°	1618.2	1640.6	1683.1	1734.6	1757.0
40°	1542.1	1568.9	1613.7	1674.1	1698.8
42.5°	1466.0	1490.6	1546.6	1611.5	1638.3
45°	1387.7	1416.8	1474.9	1548.8	1575.7
47.5°	1307.1	1336.2	1405.6	1483.9	1508.5
50°	1226.5	1255.6	1333.9	1416.8	1445.8
52.5°	1139.2	1177.3	1266.8	1349.6	1378.7
55°	1060.9	1096.7	1188.5	1282.5	1313.8
57.5°	971.4	1013.9	1114.6	1213.1	1246.7
60°	888.5	933.3	1040.7	1141.5	1175.0
62.5°	803.5	852.7	966.9	1069.8	1107.9
65°	711.7	772.2	893.0	998.2	1036.3
67.5°	628.9	691.6	819.2	926.6	960.2
70°	534.9	611.0	740.8	848.3	886.3
72.5°	454.3	530.4	667.0	772.2	810.2
75°	369.3	452.1	588.6	693.8	727.4
77.5°	284.2	376.0	512.5	593.1	604.3
80°	203.7	299.9	425.2	472.3	487.9
82.5°	143.2	230.5	313.3	344.7	353.6
85°	78.3	152.2	197.0	210.4	210.4
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)