

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: P388994

Luminaire Tested: **24CZ2-80VHE-UNV-L935-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: P388994
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-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

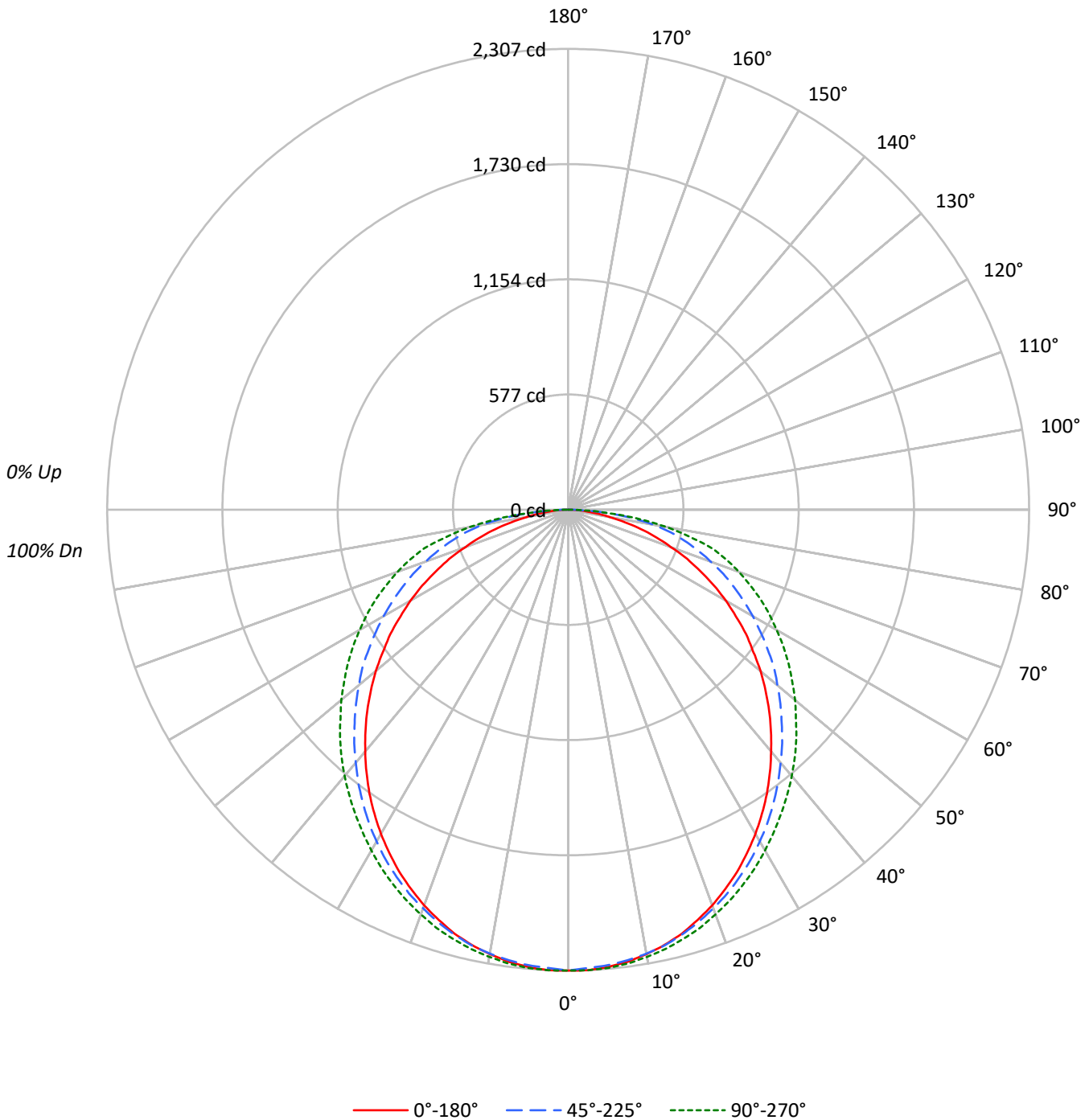
Lumens per Lamp: N/A
Luminaire Lumens: 6872.1 lumens
Efficiency: N/A
Efficacy: 127.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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			
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°	3104	3104	3104
5°	3104	3091	3110
10°	3086	3083	3105
15°	3061	3067	3099
20°	3018	3041	3087
25°	2969	3013	3075
30°	2911	2979	3061
35°	2848	2942	3052
40°	2775	2904	3058
45°	2706	2876	3072
50°	2631	2861	3101
55°	2550	2857	3158
60°	2450	2870	3240
65°	2322	2913	3381
70°	2157	2987	3573
75°	1967	3136	3875
80°	1617	3377	3874
85°	1240	3115	3328



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.2	3.2
10°-20°	623.0	9.1
20°-30°	937.5	13.6
30°-40°	1123.5	16.3
40°-50°	1170.8	17.0
50°-60°	1089.3	15.9
60°-70°	897.1	13.1
70°-80°	611.0	8.9
80°-90°	201.7	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°	1778.7	25.9
0°-40°	2902.2	42.2
0°-60°	5162.2	75.1
0°-90°	6872.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6872.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2307	2307	2307	2307	2307	
5°	2298	2298	2289	2300	2303	218
15°	2197	2200	2202	2222	2225	619
25°	2000	2009	2030	2064	2071	921
35°	1734	1754	1791	1839	1858	1084
45°	1422	1452	1511	1587	1615	1097
55°	1087	1124	1218	1314	1346	969
65°	729	791	915	1023	1062	724
75°	378	463	603	711	745	399
85°	80	156	202	216	216	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2307.3	2307.3	2307.3	2307.3	2307.3
2.5°	2307.3	2307.3	2295.8	2307.3	2307.3
5°	2298.1	2298.1	2288.9	2300.4	2302.7
7.5°	2282.1	2284.3	2275.2	2288.9	2291.2
10°	2259.1	2261.4	2256.8	2270.6	2272.9
12.5°	2231.6	2233.9	2233.9	2249.9	2252.2
15°	2197.2	2199.5	2201.8	2222.4	2224.7
17.5°	2153.6	2160.5	2165.1	2190.3	2194.9
20°	2107.7	2114.6	2123.8	2151.3	2155.9
22.5°	2055.0	2064.2	2080.2	2110.0	2116.9
25°	2000.0	2009.1	2029.8	2064.2	2071.1
27.5°	1938.0	1951.8	1977.0	2013.7	2022.9
30°	1873.8	1887.6	1917.4	1956.4	1970.1
32.5°	1805.0	1823.4	1857.8	1901.3	1915.1
35°	1733.9	1754.5	1791.2	1839.4	1857.8
37.5°	1658.2	1681.2	1724.7	1777.5	1800.4
40°	1580.2	1607.8	1653.6	1715.6	1740.8
42.5°	1502.3	1527.5	1584.8	1651.3	1678.9
45°	1422.0	1451.8	1511.4	1587.1	1614.6
47.5°	1339.4	1369.2	1440.3	1520.6	1545.8
50°	1256.9	1286.7	1366.9	1451.8	1481.6
52.5°	1167.4	1206.4	1298.1	1383.0	1412.8
55°	1087.1	1123.8	1217.9	1314.2	1346.3
57.5°	995.4	1039.0	1142.2	1243.1	1277.5
60°	910.5	956.4	1066.5	1169.7	1204.1
62.5°	823.4	873.8	990.8	1096.3	1135.3
65°	729.3	791.3	915.1	1022.9	1061.9
67.5°	644.5	708.7	839.4	949.5	983.9
70°	548.2	626.1	759.2	869.2	908.2
72.5°	465.6	543.6	683.5	791.3	830.3
75°	378.4	463.3	603.2	711.0	745.4
77.5°	291.3	385.3	525.2	607.8	619.3
80°	208.7	307.3	435.8	483.9	500.0
82.5°	146.8	236.2	321.1	353.2	362.4
85°	80.3	156.0	201.8	215.6	215.6
87.5°	34.4	66.5	80.3	82.6	84.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)