

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: P388944

Luminaire Tested: **24CZ2-70VHE-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: P388944
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: 24CZ2-70VHE-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: 5823.1 lumens
Efficiency: N/A
Efficacy: 127.4 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

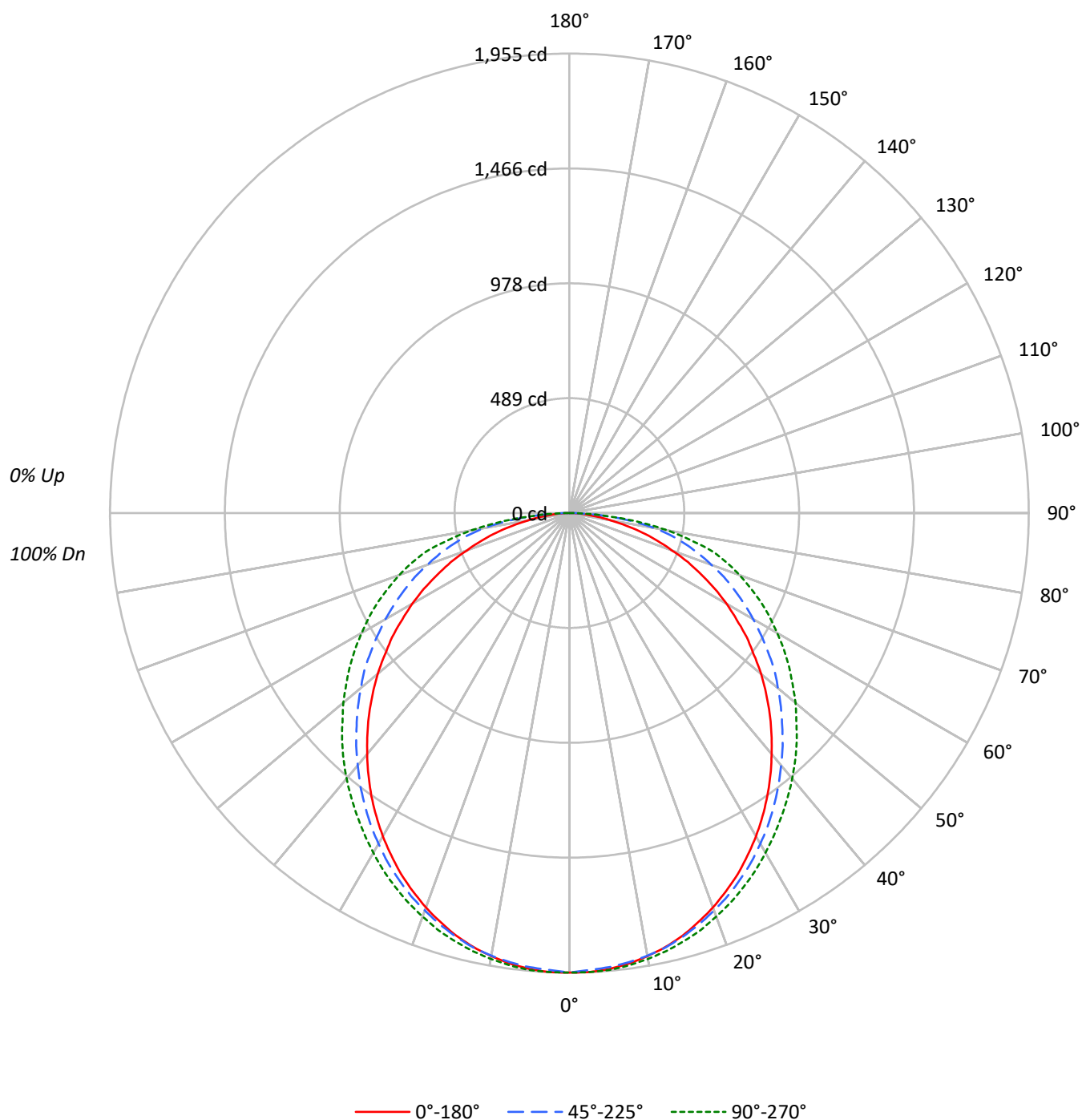
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
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		
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°	2631	2631	2631
5°	2630	2620	2635
10°	2615	2613	2631
15°	2593	2599	2626
20°	2557	2577	2616
25°	2516	2553	2605
30°	2467	2524	2594
35°	2413	2493	2586
40°	2352	2461	2591
45°	2293	2437	2603
50°	2229	2425	2628
55°	2161	2421	2676
60°	2076	2432	2746
65°	1968	2469	2865
70°	1827	2531	3028
75°	1667	2657	3283
80°	1371	2861	3283
85°	1050	2640	2820



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.9	3.2
10°-20°	527.9	9.1
20°-30°	794.4	13.6
30°-40°	952.0	16.3
40°-50°	992.1	17.0
50°-60°	923.0	15.9
60°-70°	760.2	13.1
70°-80°	517.7	8.9
80°-90°	170.9	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°	1507.2	25.9
0°-40°	2459.2	42.2
0°-60°	4374.2	75.1
0°-90°	5823.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5823.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1955	1955	1955	1955	1955	
5°	1947	1947	1940	1949	1951	185
15°	1862	1864	1866	1883	1885	525
25°	1695	1702	1720	1749	1755	780
35°	1469	1487	1518	1559	1574	918
45°	1205	1230	1281	1345	1368	929
55°	921	952	1032	1114	1141	821
65°	618	670	775	867	900	613
75°	321	393	511	602	632	338
85°	68	132	171	183	183	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1955.1	1955.1	1955.1	1955.1	1955.1
2.5°	1955.1	1955.1	1945.4	1955.1	1955.1
5°	1947.3	1947.3	1939.5	1949.3	1951.2
7.5°	1933.7	1935.7	1927.9	1939.5	1941.5
10°	1914.3	1916.2	1912.3	1924.0	1925.9
12.5°	1891.0	1892.9	1892.9	1906.5	1908.4
15°	1861.8	1863.7	1865.7	1883.2	1885.1
17.5°	1824.9	1830.7	1834.6	1856.0	1859.9
20°	1786.0	1791.8	1799.6	1822.9	1826.8
22.5°	1741.3	1749.1	1762.7	1788.0	1793.8
25°	1694.7	1702.4	1719.9	1749.1	1754.9
27.5°	1642.2	1653.9	1675.2	1706.3	1714.1
30°	1587.8	1599.4	1624.7	1657.7	1669.4
32.5°	1529.5	1545.0	1574.2	1611.1	1622.8
35°	1469.2	1486.7	1517.8	1558.6	1574.2
37.5°	1405.1	1424.5	1461.5	1506.2	1525.6
40°	1339.0	1362.3	1401.2	1453.7	1475.1
42.5°	1272.9	1294.3	1342.9	1399.3	1422.6
45°	1204.9	1230.2	1280.7	1344.9	1368.2
47.5°	1135.0	1160.2	1220.5	1288.5	1309.9
50°	1065.0	1090.3	1158.3	1230.2	1255.5
52.5°	989.2	1022.2	1100.0	1171.9	1197.1
55°	921.2	952.3	1032.0	1113.6	1140.8
57.5°	843.4	880.4	967.8	1053.3	1082.5
60°	771.5	810.4	903.7	991.1	1020.3
62.5°	697.7	740.4	839.6	929.0	962.0
65°	618.0	670.5	775.4	866.8	899.8
67.5°	546.1	600.5	711.3	804.6	833.7
70°	464.5	530.6	643.3	736.6	769.6
72.5°	394.5	460.6	579.1	670.5	703.5
75°	320.7	392.6	511.1	602.5	631.6
77.5°	246.8	326.5	445.0	515.0	524.7
80°	176.9	260.4	369.3	410.1	423.7
82.5°	124.4	200.2	272.1	299.3	307.1
85°	68.0	132.2	171.0	182.7	182.7
87.5°	29.2	56.4	68.0	70.0	71.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)