

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: P389888

Luminaire Tested: **24CZ2-70VHE-S-UNV-L950-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: P389888
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70VHE-S-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6725.2 lumens
Efficiency: N/A
Efficacy: 147.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

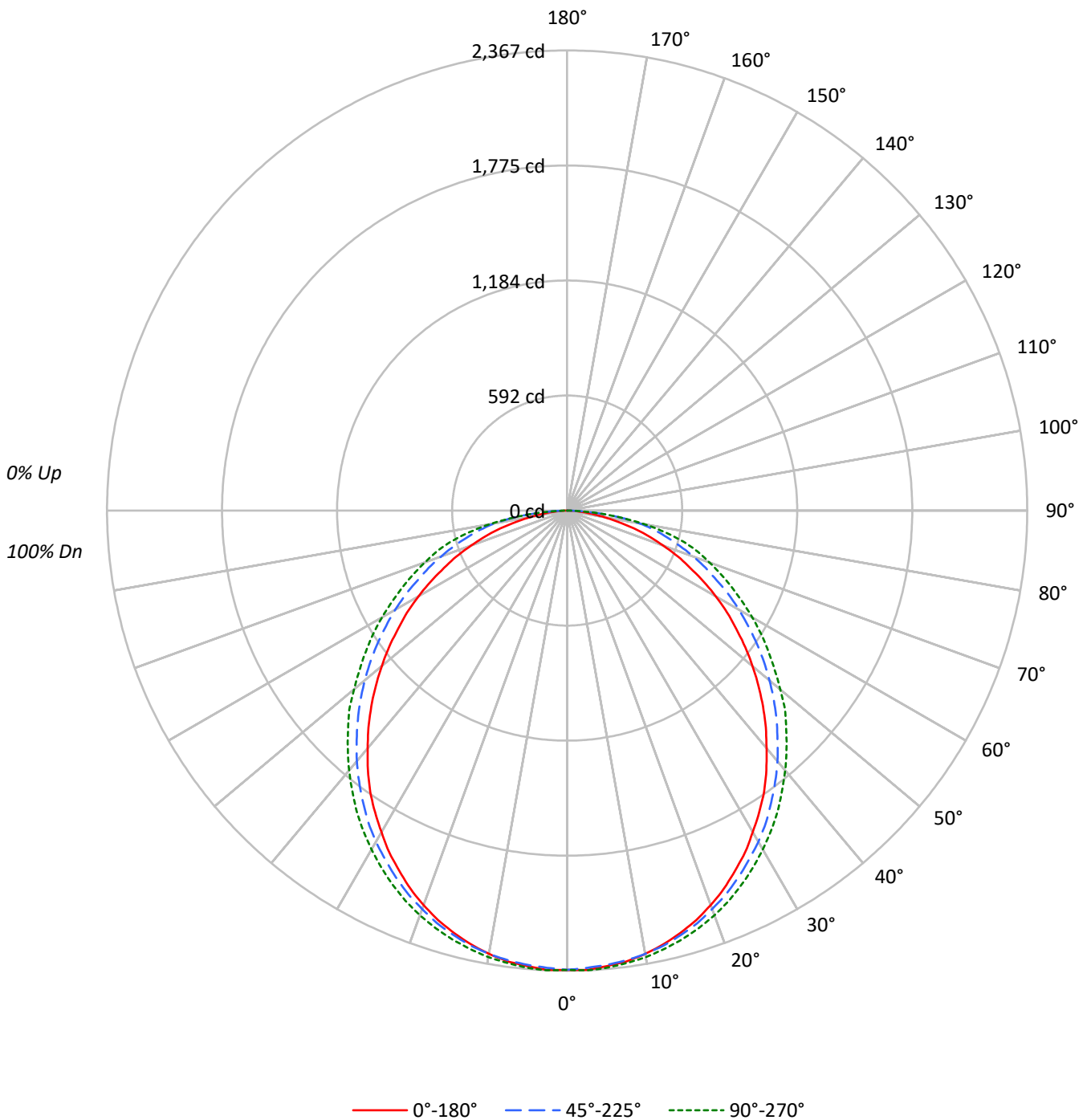
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3179	3179	3179
5°	3177	3168	3188
10°	3164	3164	3187
15°	3133	3148	3181
20°	3092	3123	3172
25°	3035	3092	3152
30°	2967	3057	3126
35°	2902	3007	3102
40°	2803	2957	3065
45°	2711	2898	3032
50°	2607	2844	2996
55°	2491	2791	2966
60°	2374	2748	2960
65°	2224	2700	2979
70°	2059	2714	3059
75°	1843	2765	3231
80°	1490	2930	3161
85°	1121	2572	2506



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.7	3.3
10°-20°	639.1	9.5
20°-30°	960.7	14.3
30°-40°	1144.4	17.0
40°-50°	1171.2	17.4
50°-60°	1054.4	15.7
60°-70°	828.1	12.3
70°-80°	537.4	8.0
80°-90°	166.2	2.5
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°	1823.5	27.1
0°-40°	2967.9	44.1
0°-60°	5193.5	77.2
0°-90°	6725.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6725.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2363	2363	2363	2363	2363	
5°	2352	2356	2346	2358	2360	223
15°	2249	2256	2260	2279	2284	634
25°	2044	2061	2083	2117	2123	942
35°	1767	1788	1831	1876	1888	1102
45°	1425	1459	1523	1581	1594	1098
55°	1062	1109	1190	1252	1265	952
65°	698	752	848	919	936	695
75°	355	423	532	604	622	375
85°	73	135	167	162	162	88
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2362.6	2362.6	2362.6	2362.6	2362.6
2.5°	2364.7	2364.7	2354.1	2364.7	2366.9
5°	2351.9	2356.2	2345.5	2358.3	2360.5
7.5°	2339.1	2339.1	2332.7	2345.5	2347.7
10°	2315.6	2317.7	2315.6	2330.6	2332.7
12.5°	2285.7	2290.0	2292.1	2307.1	2309.2
15°	2249.4	2255.8	2260.1	2279.3	2283.6
17.5°	2208.8	2215.2	2225.9	2247.3	2251.5
20°	2159.7	2168.2	2181.0	2208.8	2215.2
22.5°	2106.3	2114.8	2136.2	2161.8	2172.5
25°	2044.3	2061.4	2082.8	2116.9	2123.4
27.5°	1982.4	1997.3	2025.1	2061.4	2070.0
30°	1909.7	1933.2	1967.4	2003.7	2012.3
32.5°	1839.2	1862.7	1903.3	1941.8	1952.5
35°	1766.6	1788.0	1830.7	1875.6	1888.4
37.5°	1683.3	1711.1	1758.1	1802.9	1815.7
40°	1595.7	1629.9	1683.3	1730.3	1745.3
42.5°	1512.4	1548.7	1602.1	1653.4	1670.5
45°	1424.8	1459.0	1523.1	1580.8	1593.6
47.5°	1335.1	1373.6	1441.9	1499.6	1521.0
50°	1245.4	1286.0	1358.6	1418.4	1431.2
52.5°	1155.7	1198.4	1275.3	1339.4	1345.8
55°	1061.7	1108.7	1189.8	1251.8	1264.6
57.5°	976.2	1016.8	1104.4	1168.5	1183.4
60°	882.2	927.1	1021.1	1080.9	1100.1
62.5°	792.5	839.5	937.8	997.6	1014.7
65°	698.5	751.9	848.1	918.6	935.6
67.5°	617.4	668.6	771.2	839.5	856.6
70°	523.4	581.0	690.0	760.5	777.6
72.5°	442.2	502.0	610.9	679.3	704.9
75°	354.6	423.0	531.9	604.5	621.6
77.5°	269.2	348.2	459.3	514.8	514.8
80°	192.3	275.6	378.1	403.7	408.0
82.5°	126.0	207.2	279.8	277.7	277.7
85°	72.6	134.6	166.6	162.3	162.3
87.5°	27.8	55.5	59.8	59.8	57.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)