

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: P229990

Luminaire Tested: **24CZ-LD5-70-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229990
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-70-UNV-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (168) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6250.0 lumens
Efficiency: N/A
Efficacy: 97.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

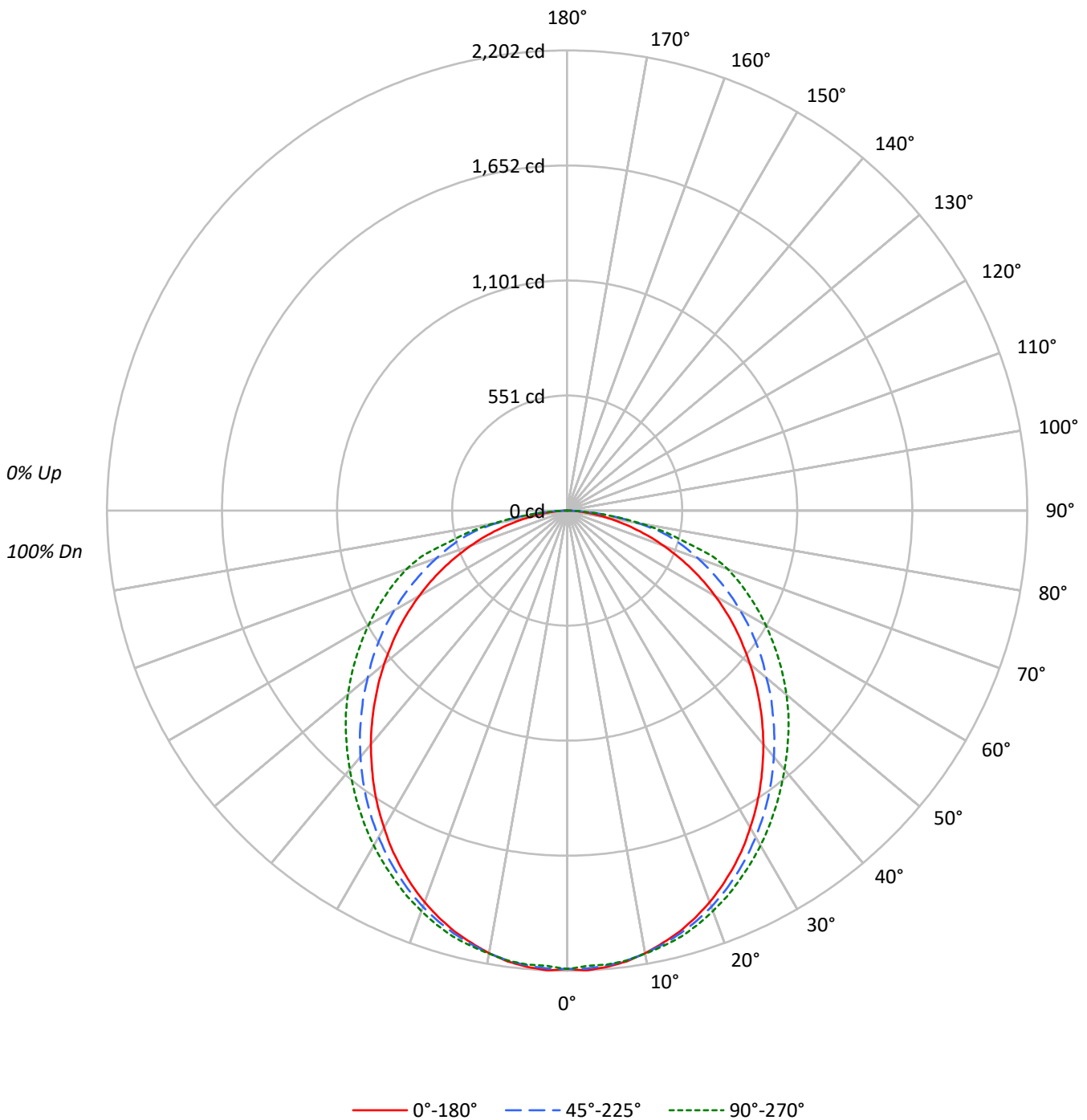
Input Watts (W): 64.22
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2951	2951	2951
5°	2960	2951	2945
10°	2938	2938	2941
15°	2903	2918	2939
20°	2856	2889	2920
25°	2796	2850	2897
30°	2723	2803	2876
35°	2647	2756	2854
40°	2567	2702	2842
45°	2480	2651	2850
50°	2392	2607	2867
55°	2304	2590	2896
60°	2200	2574	2954
65°	2085	2575	3052
70°	1928	2618	3216
75°	1724	2737	3059
80°	1443	2620	2802
85°	1090	2015	1916



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.3	3.3
10°-20°	589.9	9.4
20°-30°	881.9	14.1
30°-40°	1046.2	16.7
40°-50°	1076.8	17.2
50°-60°	987.9	15.8
60°-70°	798.7	12.8
70°-80°	518.4	8.3
80°-90°	142.9	2.3
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°	1679.1	26.9
0°-40°	2725.3	43.6
0°-60°	4790.0	76.6
0°-90°	6250.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6250.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2193	2193	2193	2193	2193	
5°	2191	2176	2185	2183	2181	208
15°	2084	2076	2095	2104	2110	587
25°	1883	1885	1920	1937	1952	867
35°	1611	1624	1678	1714	1738	1008
45°	1303	1325	1393	1459	1498	1006
55°	982	1012	1104	1194	1235	877
65°	655	693	809	916	959	647
75°	332	394	526	588	588	353
85°	71	120	130	126	124	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2193.4	2193.4	2193.4	2193.4	2193.4
2.5°	2202.0	2184.9	2193.4	2191.3	2180.6
5°	2191.3	2176.3	2184.9	2182.7	2180.6
7.5°	2176.3	2161.3	2172.0	2169.9	2172.0
10°	2150.6	2137.8	2150.6	2152.8	2152.8
12.5°	2118.5	2107.8	2124.9	2129.2	2133.5
15°	2084.3	2075.7	2095.0	2103.5	2110.0
17.5°	2041.5	2035.1	2058.6	2069.3	2077.9
20°	1994.4	1992.3	2018.0	2028.7	2039.4
22.5°	1940.9	1940.9	1970.9	1983.7	1998.7
25°	1883.1	1885.3	1919.5	1936.6	1951.6
27.5°	1821.1	1823.2	1863.9	1885.3	1902.4
30°	1752.6	1761.2	1804.0	1831.8	1851.0
32.5°	1684.1	1694.8	1741.9	1774.0	1795.4
35°	1611.4	1624.2	1677.7	1714.1	1737.6
37.5°	1536.5	1551.4	1609.2	1649.9	1677.7
40°	1461.6	1478.7	1538.6	1585.7	1617.8
42.5°	1382.4	1401.7	1468.0	1523.6	1557.9
45°	1303.2	1324.6	1393.1	1459.4	1497.9
47.5°	1224.0	1249.7	1322.5	1395.2	1435.9
50°	1142.7	1168.4	1245.4	1328.9	1369.6
52.5°	1061.4	1091.4	1177.0	1262.6	1303.2
55°	982.2	1012.2	1104.2	1194.1	1234.7
57.5°	900.9	930.9	1031.4	1125.6	1166.3
60°	817.5	851.7	956.5	1052.8	1097.8
62.5°	736.1	772.5	883.8	986.5	1029.3
65°	654.8	693.3	808.9	915.9	958.7
67.5°	571.4	616.3	736.1	845.3	890.2
70°	490.0	539.3	665.5	774.7	817.5
72.5°	410.9	464.4	594.9	706.2	731.9
75°	331.7	393.7	526.4	588.5	588.5
77.5°	256.8	325.3	449.4	472.9	485.8
80°	186.2	261.1	338.1	365.9	361.6
82.5°	124.1	199.0	241.8	241.8	235.4
85°	70.6	119.8	130.5	126.3	124.1
87.5°	30.0	44.9	40.7	32.1	27.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)