

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: P230091

Luminaire Tested: **24CZ-LD5-55SE-S-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230091
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-55SE-S-UNV-L950-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5425.0 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

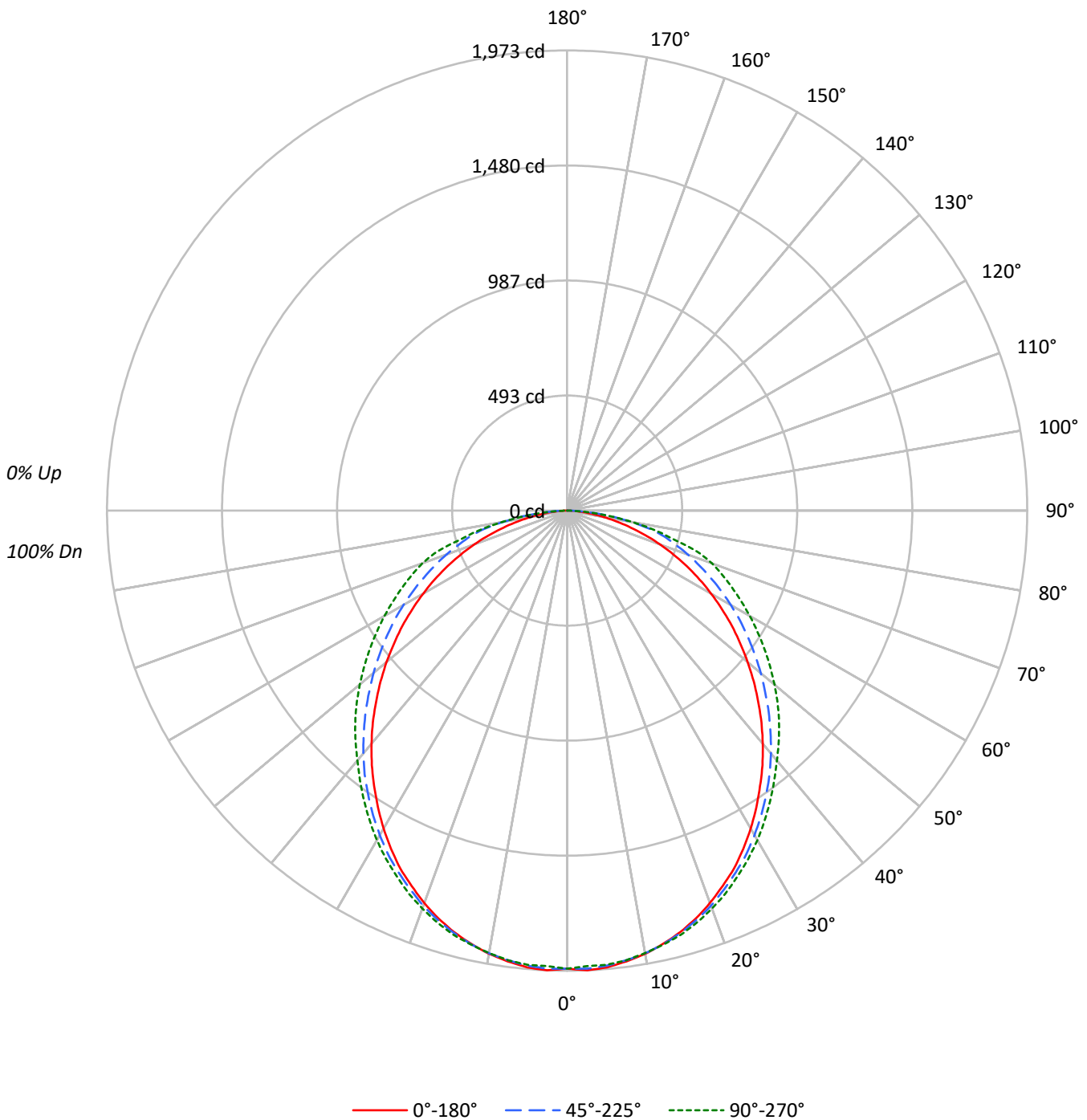
Input Watts (W): 54.69
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2642	2642	2642
5°	2655	2645	2640
10°	2636	2634	2631
15°	2607	2612	2623
20°	2564	2582	2600
25°	2514	2540	2567
30°	2445	2496	2535
35°	2369	2443	2494
40°	2292	2387	2457
45°	2205	2325	2445
50°	2116	2267	2430
55°	2024	2219	2422
60°	1919	2181	2434
65°	1805	2155	2483
70°	1662	2166	2599
75°	1473	2243	2421
80°	1230	2126	2182
85°	920	1700	1561



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.7	3.4
10°-20°	528.1	9.7
20°-30°	787.0	14.5
30°-40°	926.4	17.1
40°-50°	941.4	17.4
50°-60°	846.4	15.6
60°-70°	668.7	12.3
70°-80°	424.2	7.8
80°-90°	117.1	2.2
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°	1500.8	27.7
0°-40°	2427.2	44.7
0°-60°	4215.0	77.7
0°-90°	5425.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5425.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1964	1964	1964	1964	1964	
5°	1966	1950	1958	1955	1955	186
15°	1872	1863	1876	1881	1883	527
25°	1693	1691	1711	1722	1729	779
35°	1442	1451	1487	1504	1518	902
45°	1159	1175	1222	1258	1285	894
55°	863	884	946	1007	1032	771
65°	567	596	677	751	780	561
75°	283	332	431	469	466	302
85°	60	103	110	101	101	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1963.9	1963.9	1963.9	1963.9	1963.9
2.5°	1973.0	1958.5	1965.8	1962.1	1954.9
5°	1965.8	1949.5	1958.5	1954.9	1954.9
7.5°	1949.5	1936.9	1944.1	1942.3	1944.1
10°	1929.7	1917.0	1927.8	1927.8	1926.0
12.5°	1902.6	1891.7	1904.4	1904.4	1906.2
15°	1871.9	1862.9	1875.5	1880.9	1882.7
17.5°	1834.0	1825.0	1841.2	1846.6	1852.0
20°	1790.7	1787.0	1803.3	1808.7	1815.9
22.5°	1741.9	1741.9	1758.2	1765.4	1776.2
25°	1693.2	1691.4	1711.2	1722.1	1729.3
27.5°	1635.4	1637.2	1662.5	1673.3	1682.4
30°	1574.0	1577.7	1606.5	1619.2	1631.8
32.5°	1509.1	1516.3	1548.8	1563.2	1575.9
35°	1442.3	1451.3	1487.4	1503.6	1518.1
37.5°	1375.5	1388.1	1426.0	1442.3	1458.5
40°	1305.1	1315.9	1359.2	1379.1	1399.0
42.5°	1232.9	1247.3	1290.6	1319.5	1343.0
45°	1158.9	1175.1	1222.1	1258.2	1285.2
47.5°	1084.9	1106.5	1151.7	1200.4	1223.9
50°	1010.9	1032.5	1083.1	1137.2	1160.7
52.5°	935.0	956.7	1014.5	1070.4	1095.7
55°	862.8	884.5	945.9	1007.2	1032.5
57.5°	787.0	810.5	879.1	942.3	967.5
60°	713.0	736.5	810.5	877.3	904.4
62.5°	640.8	666.1	743.7	814.1	841.2
65°	566.8	595.7	676.9	750.9	779.8
67.5°	494.6	527.1	611.9	689.5	720.2
70°	422.4	460.3	550.6	630.0	660.7
72.5°	352.0	393.5	489.2	568.6	584.9
75°	283.4	332.1	431.4	469.3	465.7
77.5°	218.4	272.6	366.4	373.7	384.5
80°	158.8	218.4	274.4	288.8	281.6
82.5°	104.7	164.3	196.8	189.5	187.7
85°	59.6	102.9	110.1	101.1	101.1
87.5°	25.3	41.5	36.1	27.1	25.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)