

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: P261113

Luminaire Tested: **24CZ-LD5-45SE-S-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P261113
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-LD5-45SE-S-UNV-L93050-W2A1-U-3500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED AT 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3929.2 lumens
Efficiency: N/A
Efficacy: 110.3 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

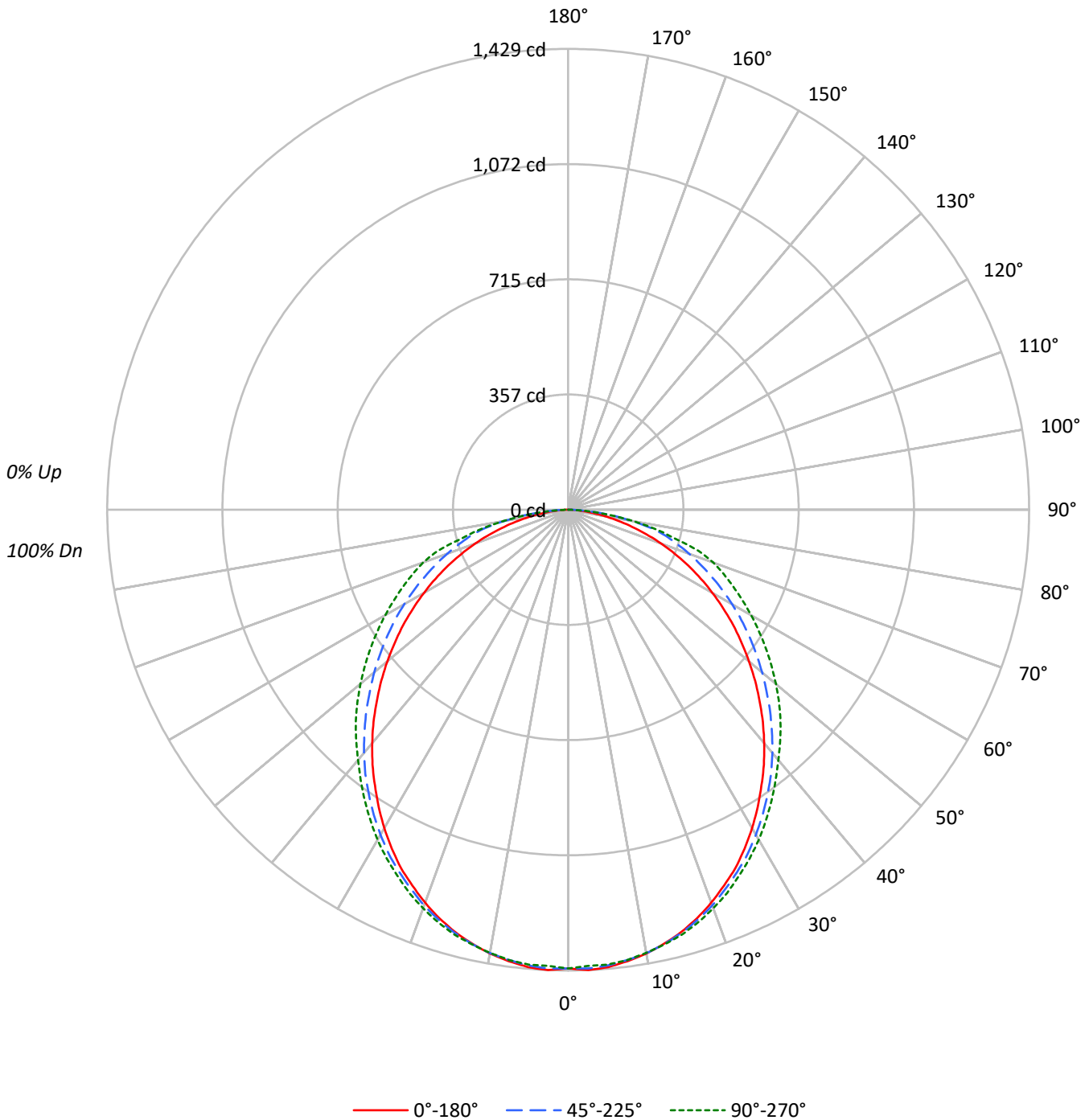
Input Watts (W): 35.632392
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1914	1914	1914
5°	1923	1916	1912
10°	1909	1908	1906
15°	1889	1892	1899
20°	1857	1870	1883
25°	1821	1840	1859
30°	1771	1808	1836
35°	1716	1770	1806
40°	1660	1729	1780
45°	1597	1684	1771
50°	1532	1642	1760
55°	1466	1607	1754
60°	1390	1580	1763
65°	1307	1561	1798
70°	1203	1569	1882
75°	1067	1625	1753
80°	892	1540	1581
85°	665	1232	1130



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.5	3.4
10°-20°	382.5	9.7
20°-30°	570.0	14.5
30°-40°	671.0	17.1
40°-50°	681.9	17.4
50°-60°	613.0	15.6
60°-70°	484.3	12.3
70°-80°	307.3	7.8
80°-90°	84.8	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°	1087.0	27.7
0°-40°	1758.0	44.7
0°-60°	3052.9	77.7
0°-90°	3929.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3929.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1422	1422	1422	1422	1422	
5°	1424	1412	1418	1416	1416	135
15°	1356	1349	1358	1362	1364	382
25°	1226	1225	1239	1247	1252	564
35°	1045	1051	1077	1089	1100	654
45°	839	851	885	911	931	648
55°	625	641	685	730	748	558
65°	410	431	490	544	565	407
75°	205	241	312	340	337	218
85°	43	74	80	73	73	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1422.5	1422.5	1422.5	1422.5	1422.5
2.5°	1429.0	1418.5	1423.8	1421.2	1415.9
5°	1423.8	1412.0	1418.5	1415.9	1415.9
7.5°	1412.0	1402.8	1408.1	1406.8	1408.1
10°	1397.6	1388.5	1396.3	1396.3	1395.0
12.5°	1378.0	1370.2	1379.3	1379.3	1380.6
15°	1355.8	1349.2	1358.4	1362.3	1363.6
17.5°	1328.3	1321.8	1333.6	1337.5	1341.4
20°	1296.9	1294.3	1306.1	1310.0	1315.3
22.5°	1261.6	1261.6	1273.4	1278.6	1286.5
25°	1226.3	1225.0	1239.4	1247.3	1252.5
27.5°	1184.5	1185.8	1204.1	1212.0	1218.5
30°	1140.1	1142.7	1163.6	1172.7	1181.9
32.5°	1093.0	1098.2	1121.8	1132.2	1141.4
35°	1044.6	1051.2	1077.3	1089.1	1099.5
37.5°	996.2	1005.4	1032.9	1044.6	1056.4
40°	945.3	953.1	984.5	998.9	1013.2
42.5°	893.0	903.4	934.8	955.7	972.7
45°	839.4	851.1	885.1	911.3	930.9
47.5°	785.8	801.4	834.1	869.4	886.4
50°	732.1	747.8	784.4	823.7	840.7
52.5°	677.2	692.9	734.8	775.3	793.6
55°	624.9	640.6	685.1	729.5	747.8
57.5°	570.0	587.0	636.7	682.5	700.8
60°	516.4	533.4	587.0	635.4	655.0
62.5°	464.1	482.4	538.7	589.6	609.3
65°	410.5	431.4	490.3	543.9	564.8
67.5°	358.2	381.8	443.2	499.4	521.7
70°	305.9	333.4	398.8	456.3	478.5
72.5°	254.9	285.0	354.3	411.8	423.6
75°	205.3	240.6	312.5	339.9	337.3
77.5°	158.2	197.4	265.4	270.6	278.5
80°	115.1	158.2	198.7	209.2	204.0
82.5°	75.8	119.0	142.5	137.3	136.0
85°	43.1	74.5	79.8	73.2	73.2
87.5°	18.3	30.1	26.1	19.6	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)