

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: P230041

Luminaire Tested: **24CZ-LD5-45-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230041
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-LD5-45-S-UNV-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

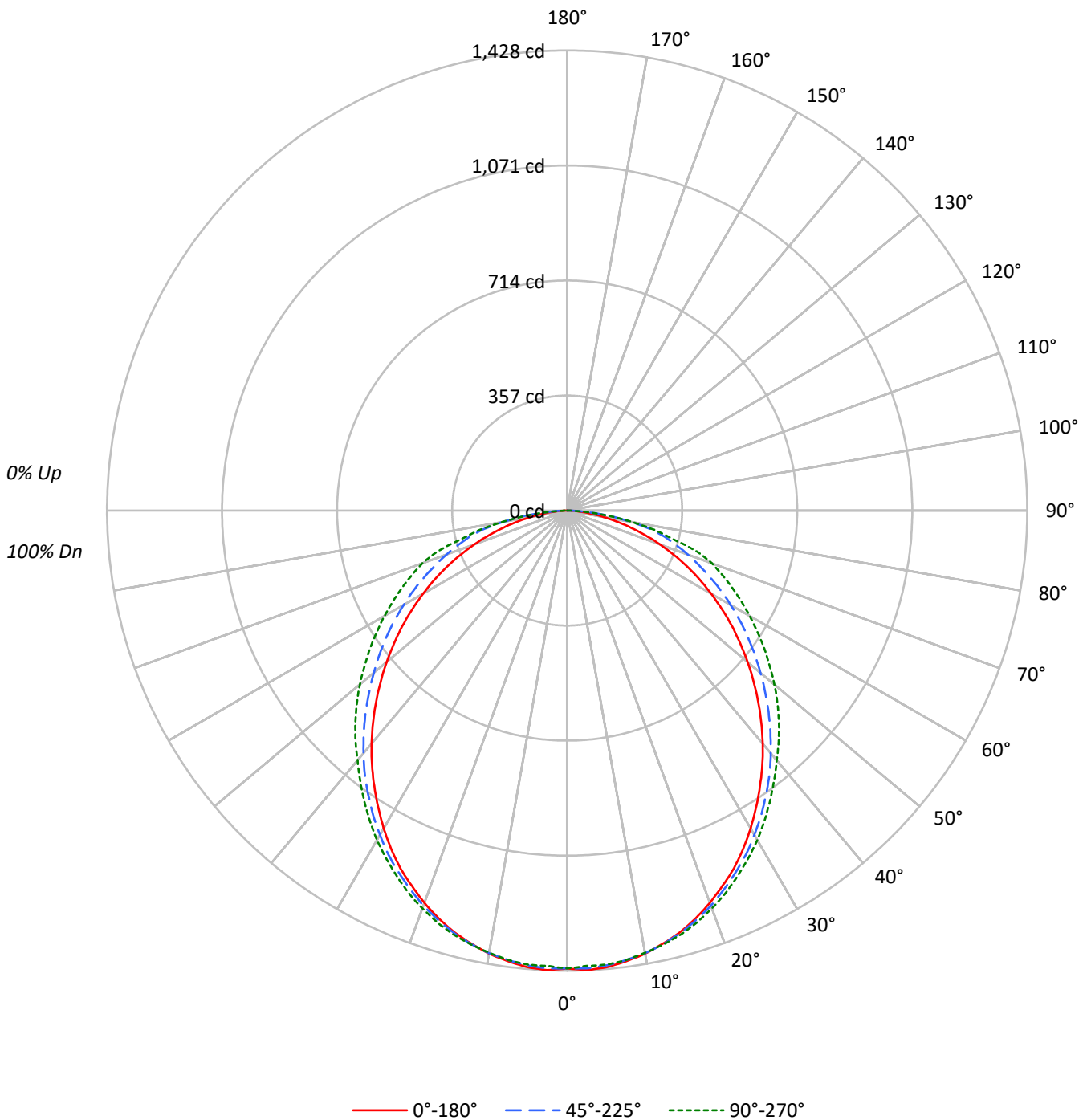
Lumens per Lamp: N/A
Luminaire Lumens: 3925.0 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35.69
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°	1912	1912	1912
5°	1921	1914	1910
10°	1907	1906	1904
15°	1886	1890	1897
20°	1855	1868	1881
25°	1819	1838	1857
30°	1769	1806	1834
35°	1714	1768	1804
40°	1658	1727	1778
45°	1595	1682	1769
50°	1531	1640	1758
55°	1464	1605	1752
60°	1388	1578	1761
65°	1306	1559	1796
70°	1202	1567	1880
75°	1066	1622	1751
80°	890	1538	1578
85°	665	1230	1129



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.3	3.4
10°-20°	382.1	9.7
20°-30°	569.4	14.5
30°-40°	670.2	17.1
40°-50°	681.1	17.4
50°-60°	612.4	15.6
60°-70°	483.8	12.3
70°-80°	306.9	7.8
80°-90°	84.7	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°	1085.8	27.7
0°-40°	1756.0	44.7
0°-60°	3049.6	77.7
0°-90°	3925.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3925.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1421	1421	1421	1421	1421	
5°	1422	1410	1417	1414	1414	135
15°	1354	1348	1357	1361	1362	381
25°	1225	1224	1238	1246	1251	563
35°	1044	1050	1076	1088	1098	653
45°	838	850	884	910	930	647
55°	624	640	684	729	747	558
65°	410	431	490	543	564	406
75°	205	240	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°	1420.9	1420.9	1420.9	1420.9	1420.9
2.5°	1427.5	1417.0	1422.2	1419.6	1414.4
5°	1422.2	1410.5	1417.0	1414.4	1414.4
7.5°	1410.5	1401.3	1406.6	1405.3	1406.6
10°	1396.1	1387.0	1394.8	1394.8	1393.5
12.5°	1376.5	1368.7	1377.8	1377.8	1379.1
15°	1354.3	1347.8	1356.9	1360.8	1362.2
17.5°	1326.9	1320.4	1332.1	1336.0	1340.0
20°	1295.5	1292.9	1304.7	1308.6	1313.8
22.5°	1260.3	1260.3	1272.0	1277.3	1285.1
25°	1225.0	1223.7	1238.1	1245.9	1251.1
27.5°	1183.2	1184.5	1202.8	1210.7	1217.2
30°	1138.8	1141.4	1162.3	1171.5	1180.6
32.5°	1091.8	1097.0	1120.5	1131.0	1140.1
35°	1043.5	1050.0	1076.1	1087.9	1098.3
37.5°	995.2	1004.3	1031.7	1043.5	1055.2
40°	944.2	952.1	983.4	997.8	1012.1
42.5°	892.0	902.4	933.8	954.7	971.7
45°	838.4	850.2	884.2	910.3	929.9
47.5°	784.9	800.6	833.2	868.5	885.5
50°	731.4	747.0	783.6	822.8	839.8
52.5°	676.5	692.2	734.0	774.5	792.7
55°	624.3	639.9	684.3	728.7	747.0
57.5°	569.4	586.4	636.0	681.7	700.0
60°	515.9	532.8	586.4	634.7	654.3
62.5°	463.6	481.9	538.1	589.0	608.6
65°	410.1	431.0	489.7	543.3	564.2
67.5°	357.8	381.4	442.7	498.9	521.1
70°	305.6	333.0	398.3	455.8	478.0
72.5°	254.7	284.7	353.9	411.4	423.1
75°	205.0	240.3	312.1	339.6	336.9
77.5°	158.0	197.2	265.1	270.3	278.2
80°	114.9	158.0	198.5	209.0	203.7
82.5°	75.7	118.8	142.4	137.1	135.8
85°	43.1	74.4	79.7	73.1	73.1
87.5°	18.3	30.0	26.1	19.6	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)