

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: P230008

Luminaire Tested: **24CZ-LD5-45SE-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230008
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-LD5-45SE-UNV-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (84) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3787.0 lumens
Efficiency: N/A
Efficacy: 94.9 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

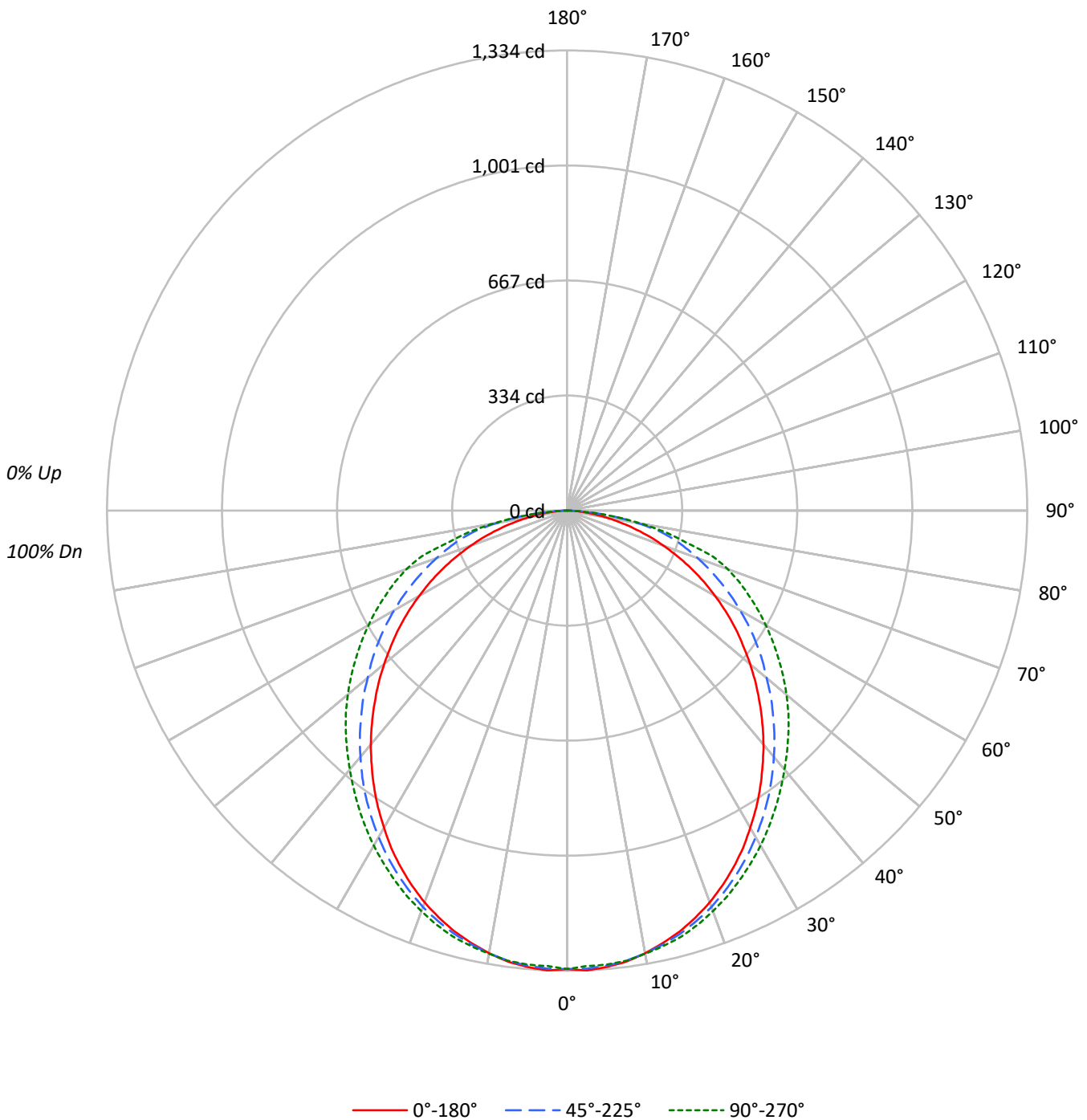
Input Watts (W): 39.91
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1788	1788	1788
5°	1793	1788	1785
10°	1780	1780	1782
15°	1759	1768	1781
20°	1730	1751	1769
25°	1694	1727	1756
30°	1650	1698	1743
35°	1604	1670	1729
40°	1555	1638	1722
45°	1502	1606	1727
50°	1449	1580	1737
55°	1396	1570	1755
60°	1333	1560	1790
65°	1263	1560	1849
70°	1168	1587	1948
75°	1045	1658	1854
80°	874	1588	1698
85°	661	1221	1161



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.6	3.3
10°-20°	357.4	9.4
20°-30°	534.4	14.1
30°-40°	633.9	16.7
40°-50°	652.5	17.2
50°-60°	598.6	15.8
60°-70°	484.0	12.8
70°-80°	314.1	8.3
80°-90°	86.6	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°	1017.4	26.9
0°-40°	1651.3	43.6
0°-60°	2902.3	76.6
0°-90°	3787.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3787.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1329	1329	1329	1329	1329	
5°	1328	1319	1324	1323	1321	126
15°	1263	1258	1269	1275	1278	356
25°	1141	1142	1163	1173	1182	525
35°	976	984	1017	1039	1053	611
45°	790	803	844	884	908	609
55°	595	613	669	724	748	532
65°	397	420	490	555	581	392
75°	201	239	319	357	357	214
85°	43	73	79	76	75	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1329.0	1329.0	1329.0	1329.0	1329.0
2.5°	1334.2	1323.9	1329.0	1327.7	1321.3
5°	1327.7	1318.7	1323.9	1322.6	1321.3
7.5°	1318.7	1309.6	1316.1	1314.8	1316.1
10°	1303.1	1295.3	1303.1	1304.4	1304.4
12.5°	1283.7	1277.2	1287.5	1290.1	1292.7
15°	1262.9	1257.7	1269.4	1274.6	1278.5
17.5°	1237.0	1233.1	1247.4	1253.8	1259.0
20°	1208.5	1207.2	1222.7	1229.2	1235.7
22.5°	1176.0	1176.0	1194.2	1202.0	1211.0
25°	1141.0	1142.3	1163.1	1173.4	1182.5
27.5°	1103.4	1104.7	1129.4	1142.3	1152.7
30°	1061.9	1067.1	1093.1	1109.9	1121.6
32.5°	1020.4	1026.9	1055.5	1074.9	1087.9
35°	976.4	984.1	1016.6	1038.6	1052.9
37.5°	931.0	940.1	975.1	999.7	1016.6
40°	885.6	896.0	932.3	960.8	980.2
42.5°	837.6	849.3	889.5	923.2	943.9
45°	789.6	802.6	844.1	884.3	907.6
47.5°	741.7	757.2	801.3	845.4	870.0
50°	692.4	708.0	754.6	805.2	829.8
52.5°	643.1	661.3	713.1	765.0	789.6
55°	595.2	613.3	669.1	723.5	748.2
57.5°	545.9	564.0	625.0	682.0	706.7
60°	495.3	516.1	579.6	637.9	665.2
62.5°	446.0	468.1	535.5	597.7	623.7
65°	396.8	420.1	490.1	555.0	580.9
67.5°	346.2	373.4	446.0	512.2	539.4
70°	296.9	326.7	403.3	469.4	495.3
72.5°	249.0	281.4	360.5	427.9	443.4
75°	201.0	238.6	319.0	356.6	356.6
77.5°	155.6	197.1	272.3	286.6	294.3
80°	112.8	158.2	204.9	221.7	219.1
82.5°	75.2	120.6	146.5	146.5	142.6
85°	42.8	72.6	79.1	76.5	75.2
87.5°	18.2	27.2	24.6	19.4	16.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)