

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: P230075

Luminaire Tested: **24CZ-LD5-35SE-S-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230075
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-LD5-35SE-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: 3457.0 lumens
Efficiency: N/A
Efficacy: 121.0 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

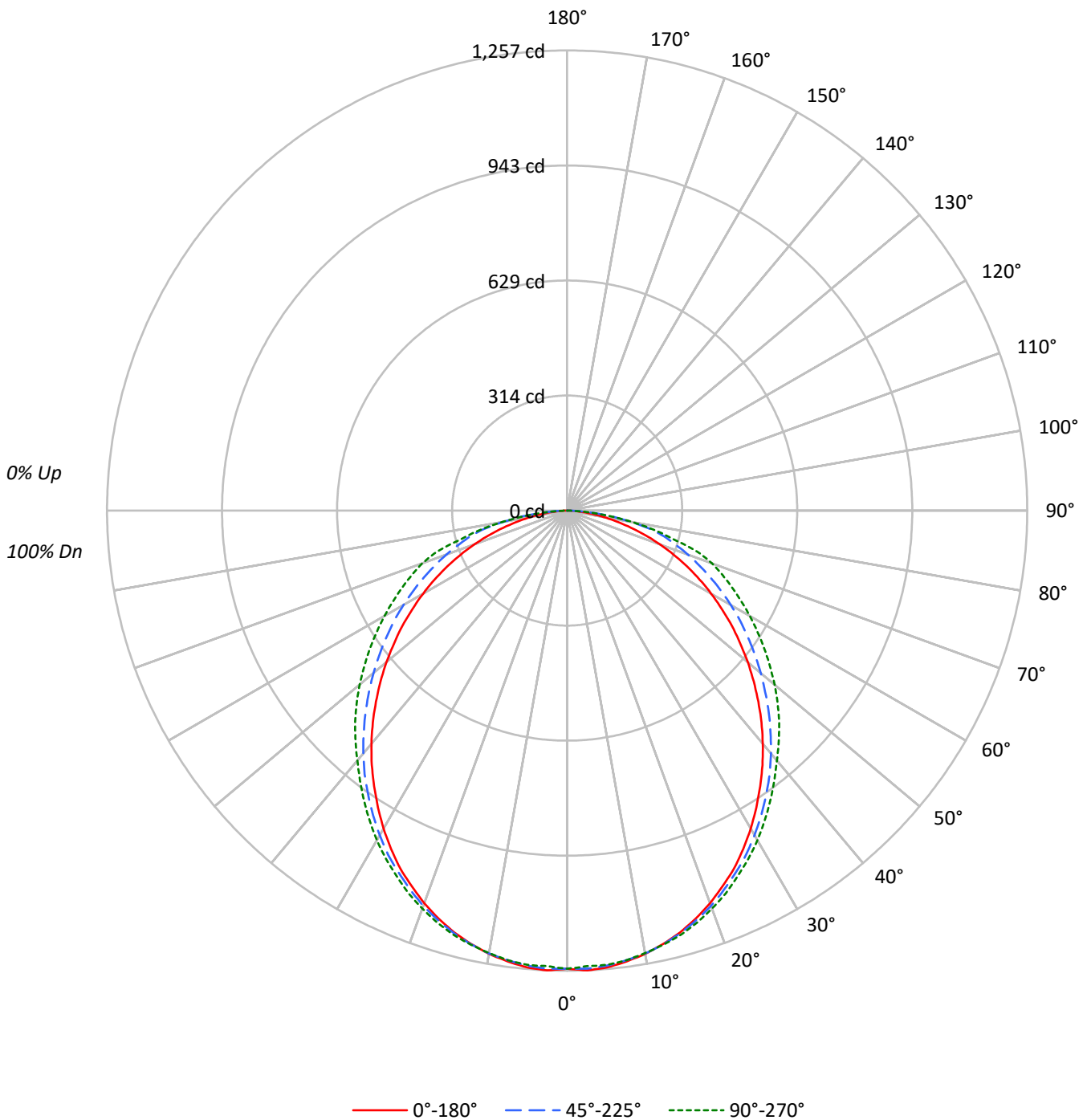
Input Watts (W): 28.57
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1684	1684	1684
5°	1692	1686	1682
10°	1680	1678	1677
15°	1662	1665	1671
20°	1634	1645	1657
25°	1602	1619	1636
30°	1558	1590	1615
35°	1510	1557	1589
40°	1461	1521	1566
45°	1405	1482	1558
50°	1348	1445	1548
55°	1290	1414	1544
60°	1223	1390	1551
65°	1150	1373	1582
70°	1059	1380	1656
75°	939	1429	1543
80°	784	1354	1390
85°	587	1084	994



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.3	3.4
10°-20°	336.5	9.7
20°-30°	501.5	14.5
30°-40°	590.3	17.1
40°-50°	599.9	17.4
50°-60°	539.4	15.6
60°-70°	426.1	12.3
70°-80°	270.3	7.8
80°-90°	74.6	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°	956.3	27.7
0°-40°	1546.7	44.7
0°-60°	2685.9	77.7
0°-90°	3457.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3457.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1252	1252	1252	1252	1252	
5°	1253	1242	1248	1246	1246	119
15°	1193	1187	1195	1199	1200	336
25°	1079	1078	1090	1097	1102	496
35°	919	925	948	958	967	575
45°	738	749	779	802	819	570
55°	550	564	603	642	658	491
65°	361	380	431	478	497	358
75°	181	212	275	299	297	192
85°	38	66	70	64	64	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1251.5	1251.5	1251.5	1251.5	1251.5
2.5°	1257.2	1248.0	1252.6	1250.3	1245.7
5°	1252.6	1242.3	1248.0	1245.7	1245.7
7.5°	1242.3	1234.2	1238.8	1237.7	1238.8
10°	1229.6	1221.6	1228.5	1228.5	1227.3
12.5°	1212.4	1205.5	1213.5	1213.5	1214.7
15°	1192.8	1187.1	1195.1	1198.6	1199.7
17.5°	1168.7	1162.9	1173.3	1176.7	1180.2
20°	1141.1	1138.8	1149.1	1152.6	1157.2
22.5°	1110.0	1110.0	1120.4	1125.0	1131.9
25°	1079.0	1077.8	1090.5	1097.4	1102.0
27.5°	1042.1	1043.3	1059.4	1066.3	1072.1
30°	1003.0	1005.3	1023.7	1031.8	1039.8
32.5°	961.6	966.2	986.9	996.1	1004.2
35°	919.1	924.8	947.8	958.2	967.4
37.5°	876.5	884.6	908.7	919.1	929.4
40°	831.6	838.5	866.2	878.8	891.5
42.5°	785.6	794.8	822.4	840.8	855.8
45°	738.5	748.8	778.7	801.7	819.0
47.5°	691.3	705.1	733.9	764.9	779.9
50°	644.2	658.0	690.2	724.7	739.6
52.5°	595.8	609.6	646.5	682.1	698.2
55°	549.8	563.6	602.7	641.9	658.0
57.5°	501.5	516.5	560.2	600.4	616.5
60°	454.4	469.3	516.5	559.0	576.3
62.5°	408.3	424.5	473.9	518.8	536.0
65°	361.2	379.6	431.4	478.5	496.9
67.5°	315.2	335.9	389.9	439.4	459.0
70°	269.2	293.3	350.8	401.4	421.0
72.5°	224.3	250.8	311.7	362.3	372.7
75°	180.6	211.7	274.9	299.1	296.8
77.5°	139.2	173.7	233.5	238.1	245.0
80°	101.2	139.2	174.8	184.0	179.4
82.5°	66.7	104.7	125.4	120.8	119.6
85°	38.0	65.6	70.2	64.4	64.4
87.5°	16.1	26.5	23.0	17.3	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)