

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: P230073

Luminaire Tested: **24CZ-LD5-35SE-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230073
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-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3101.0 lumens
Efficiency: N/A
Efficacy: 108.5 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

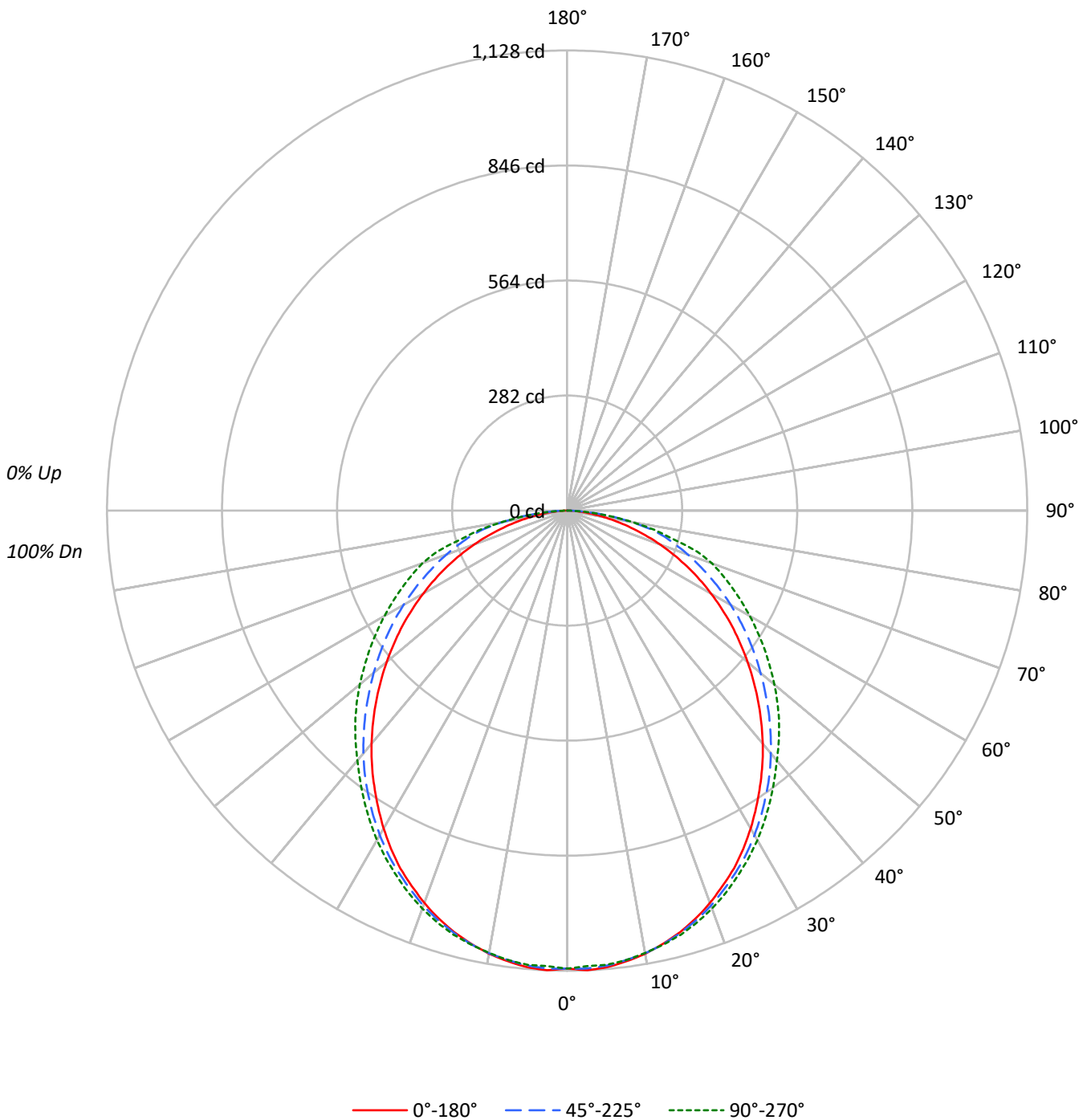
Input Watts (W): 28.57
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1510	1510	1510
5°	1518	1512	1509
10°	1507	1506	1504
15°	1490	1493	1499
20°	1466	1476	1486
25°	1437	1452	1468
30°	1398	1427	1449
35°	1354	1396	1425
40°	1310	1365	1405
45°	1260	1329	1398
50°	1209	1296	1389
55°	1157	1268	1384
60°	1097	1247	1391
65°	1032	1232	1419
70°	950	1238	1485
75°	842	1282	1384
80°	704	1215	1247
85°	526	971	892



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.1	3.4
10°-20°	301.9	9.7
20°-30°	449.9	14.5
30°-40°	529.5	17.1
40°-50°	538.1	17.4
50°-60°	483.8	15.6
60°-70°	382.2	12.3
70°-80°	242.5	7.8
80°-90°	66.9	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°	857.9	27.7
0°-40°	1387.4	44.7
0°-60°	2409.4	77.7
0°-90°	3101.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3101.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1123	1123	1123	1123	1123	
5°	1124	1114	1120	1118	1118	107
15°	1070	1065	1072	1075	1076	301
25°	968	967	978	984	988	445
35°	824	830	850	860	868	516
45°	662	672	698	719	735	511
55°	493	506	541	576	590	440
65°	324	340	387	429	446	321
75°	162	190	247	268	266	172
85°	34	59	63	58	58	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1122.6	1122.6	1122.6	1122.6	1122.6
2.5°	1127.8	1119.5	1123.7	1121.6	1117.5
5°	1123.7	1114.4	1119.5	1117.5	1117.5
7.5°	1114.4	1107.1	1111.3	1110.2	1111.3
10°	1103.0	1095.8	1102.0	1102.0	1101.0
12.5°	1087.5	1081.3	1088.6	1088.6	1089.6
15°	1070.0	1064.8	1072.1	1075.2	1076.2
17.5°	1048.3	1043.2	1052.5	1055.6	1058.6
20°	1023.6	1021.5	1030.8	1033.9	1038.0
22.5°	995.7	995.7	1005.0	1009.1	1015.3
25°	967.8	966.8	978.2	984.4	988.5
27.5°	934.8	935.9	950.3	956.5	961.7
30°	899.7	901.8	918.3	925.5	932.8
32.5°	862.6	866.7	885.3	893.6	900.8
35°	824.4	829.6	850.2	859.5	867.8
37.5°	786.2	793.5	815.1	824.4	833.7
40°	746.0	752.2	777.0	788.3	799.7
42.5°	704.7	713.0	737.8	754.3	767.7
45°	662.4	671.7	698.5	719.2	734.7
47.5°	620.1	632.5	658.3	686.2	699.6
50°	577.8	590.2	619.1	650.0	663.5
52.5°	534.5	546.9	579.9	611.9	626.3
55°	493.2	505.6	540.7	575.8	590.2
57.5°	449.9	463.3	502.5	538.6	553.1
60°	407.6	421.0	463.3	501.5	516.9
62.5°	366.3	380.7	425.1	465.4	480.8
65°	324.0	340.5	386.9	429.2	445.7
67.5°	282.7	301.3	349.8	394.2	411.7
70°	241.4	263.1	314.7	360.1	377.6
72.5°	201.2	224.9	279.6	325.0	334.3
75°	162.0	189.9	246.6	268.3	266.2
77.5°	124.9	155.8	209.5	213.6	219.8
80°	90.8	124.9	156.8	165.1	161.0
82.5°	59.8	93.9	112.5	108.3	107.3
85°	34.1	58.8	62.9	57.8	57.8
87.5°	14.4	23.7	20.6	15.5	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)