

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: P229960

Luminaire Tested: **24CZ-LD5-35-UNV-L930-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229960  
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-LD5-35-UNV-L930-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2894.0 lumens  
Efficiency: N/A  
Efficacy: 114.3 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

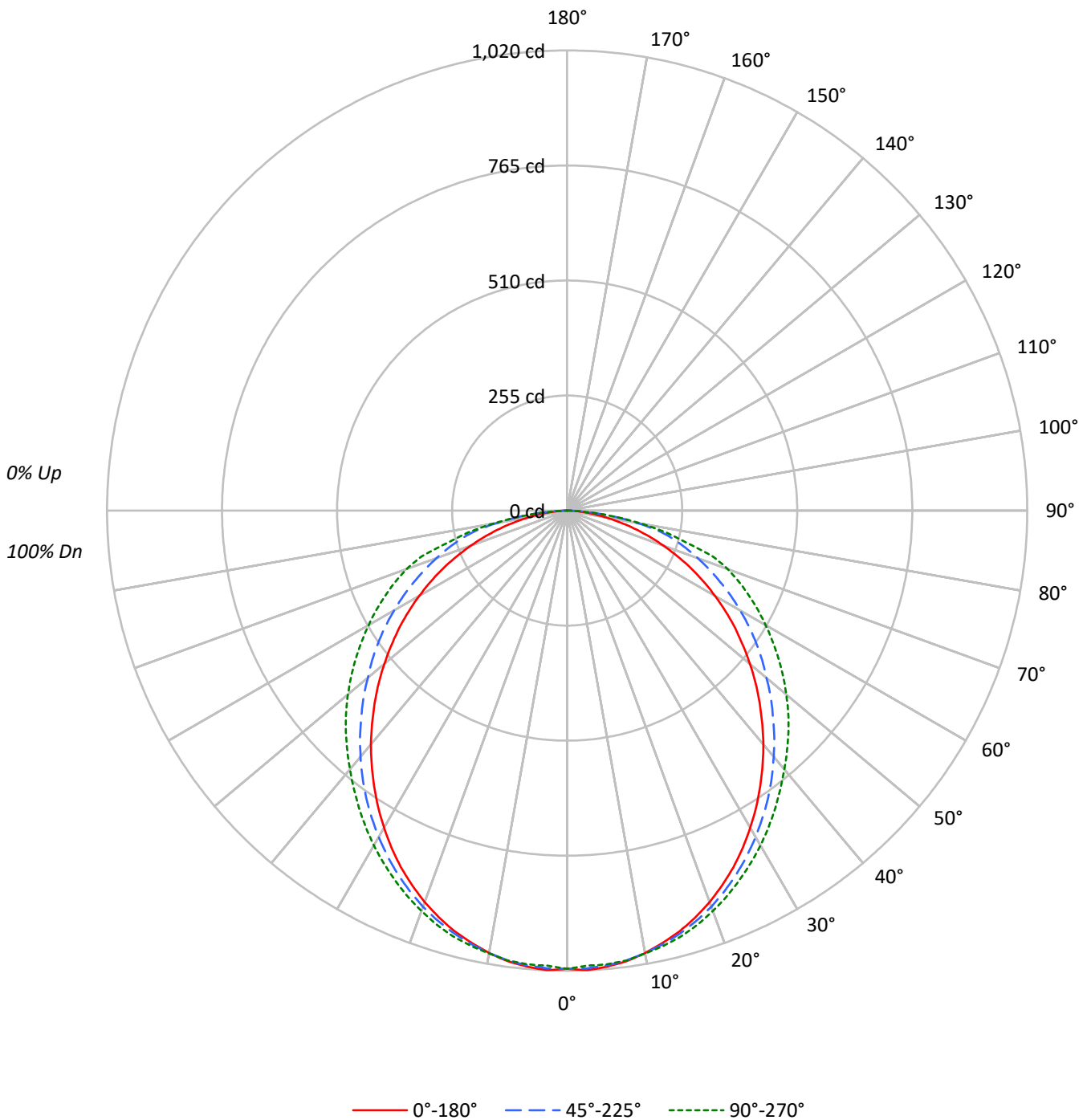
Input Watts (W): 25.32  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1366	1366	1366
5°	1370	1366	1364
10°	1361	1361	1362
15°	1344	1351	1361
20°	1322	1338	1352
25°	1295	1319	1342
30°	1261	1298	1332
35°	1225	1276	1322
40°	1189	1251	1316
45°	1148	1228	1320
50°	1108	1207	1328
55°	1067	1199	1341
60°	1019	1192	1368
65°	965	1192	1413
70°	893	1212	1489
75°	799	1267	1417
80°	668	1213	1298
85°	505	932	888



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.0	3.3
10°-20°	273.2	9.4
20°-30°	408.4	14.1
30°-40°	484.4	16.7
40°-50°	498.6	17.2
50°-60°	457.4	15.8
60°-70°	369.8	12.8
70°-80°	240.0	8.3
80°-90°	66.2	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°	777.5	26.9
0°-40°	1261.9	43.6
0°-60°	2217.9	76.6
0°-90°	2894.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2894.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1016	1016	1016	1016	1016	
5°	1015	1008	1012	1011	1010	96
15°	965	961	970	974	977	272
25°	872	873	889	897	904	401
35°	746	752	777	794	805	467
45°	603	613	645	676	694	466
55°	455	469	511	553	572	406
65°	303	321	374	424	444	300
75°	154	182	244	272	272	163
85°	33	56	60	58	58	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1015.6	1015.6	1015.6	1015.6	1015.6
2.5°	1019.6	1011.7	1015.6	1014.7	1009.7
5°	1014.7	1007.7	1011.7	1010.7	1009.7
7.5°	1007.7	1000.8	1005.7	1004.7	1005.7
10°	995.8	989.9	995.8	996.8	996.8
12.5°	981.0	976.0	983.9	985.9	987.9
15°	965.1	961.1	970.1	974.0	977.0
17.5°	945.3	942.3	953.2	958.2	962.1
20°	923.5	922.5	934.4	939.3	944.3
22.5°	898.7	898.7	912.6	918.5	925.5
25°	872.0	873.0	888.8	896.7	903.7
27.5°	843.2	844.2	863.0	873.0	880.9
30°	811.5	815.5	835.3	848.2	857.1
32.5°	779.8	784.8	806.6	821.4	831.3
35°	746.1	752.1	776.8	793.7	804.6
37.5°	711.4	718.4	745.1	764.0	776.8
40°	676.8	684.7	712.4	734.2	749.1
42.5°	640.1	649.0	679.7	705.5	721.4
45°	603.4	613.3	645.1	675.8	693.6
47.5°	566.8	578.7	612.4	646.0	664.9
50°	529.1	541.0	576.7	615.3	634.2
52.5°	491.5	505.3	545.0	584.6	603.4
55°	454.8	468.7	511.3	552.9	571.7
57.5°	417.2	431.0	477.6	521.2	540.0
60°	378.5	394.4	442.9	487.5	508.3
62.5°	340.9	357.7	409.2	456.8	476.6
65°	303.2	321.0	374.5	424.1	443.9
67.5°	264.6	285.4	340.9	391.4	412.2
70°	226.9	249.7	308.2	358.7	378.5
72.5°	190.2	215.0	275.5	327.0	338.9
75°	153.6	182.3	243.8	272.5	272.5
77.5°	118.9	150.6	208.1	219.0	224.9
80°	86.2	120.9	156.6	169.4	167.5
82.5°	57.5	92.2	112.0	112.0	109.0
85°	32.7	55.5	60.4	58.5	57.5
87.5°	13.9	20.8	18.8	14.9	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)