

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: P230032

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230032  
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-LD5-35-S-UNV-L930-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2952.0 lumens  
Efficiency: N/A  
Efficacy: 116.6 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

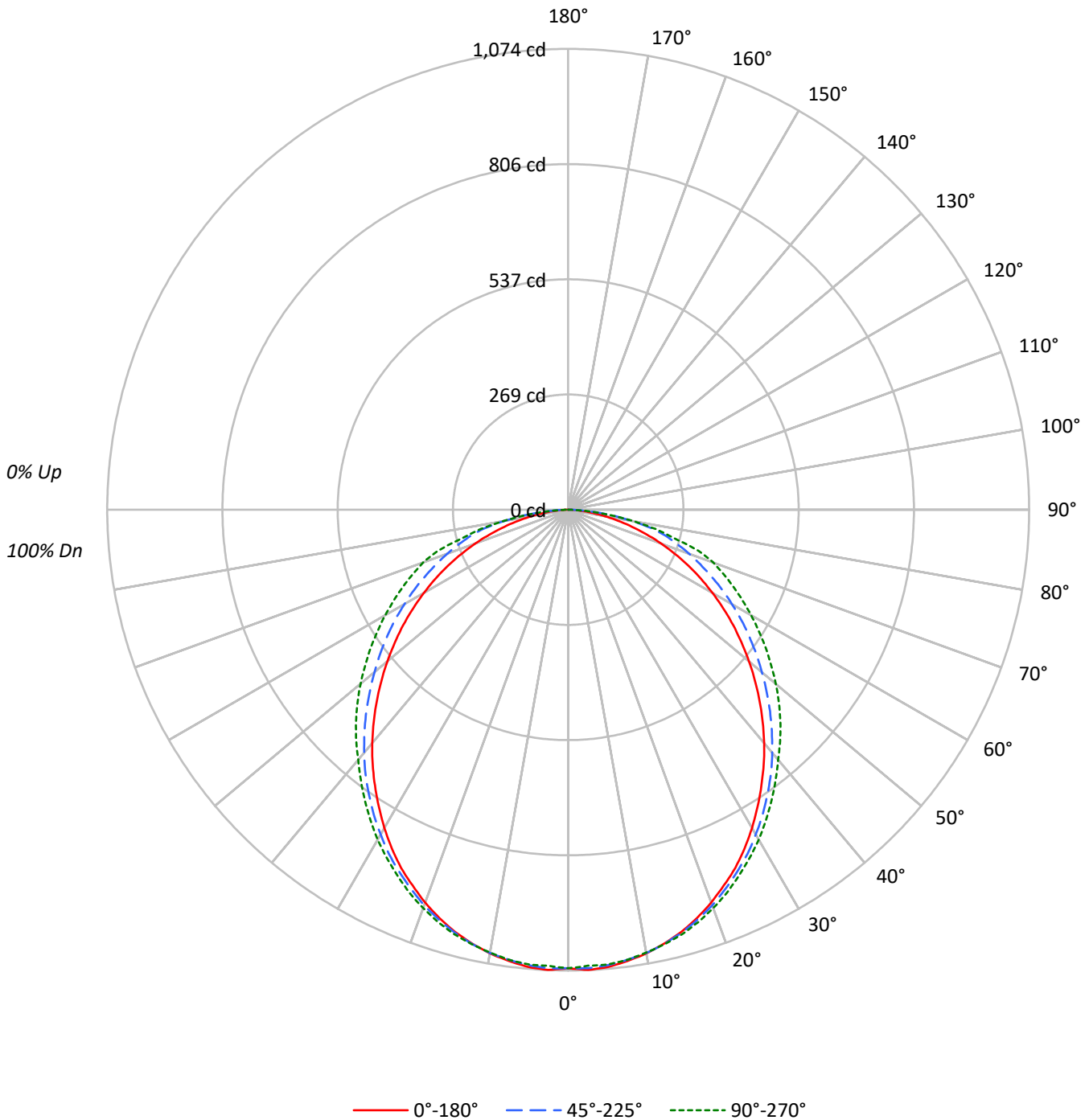
Input Watts (W): 25.32  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1438	1438	1438
5°	1445	1439	1437
10°	1435	1433	1432
15°	1419	1422	1427
20°	1395	1405	1415
25°	1368	1382	1397
30°	1331	1358	1379
35°	1289	1329	1357
40°	1247	1299	1337
45°	1200	1265	1331
50°	1151	1234	1322
55°	1101	1207	1318
60°	1044	1187	1324
65°	982	1173	1351
70°	904	1179	1414
75°	802	1221	1317
80°	669	1157	1187
85°	500	925	849



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.0	3.4
10°-20°	287.4	9.7
20°-30°	428.2	14.5
30°-40°	504.1	17.1
40°-50°	512.3	17.4
50°-60°	460.6	15.6
60°-70°	363.9	12.3
70°-80°	230.8	7.8
80°-90°	63.7	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°	816.6	27.7
0°-40°	1320.7	44.7
0°-60°	2293.6	77.7
0°-90°	2952.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2952.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1069	1069	1069	1069	1069	
5°	1070	1061	1066	1064	1064	101
15°	1019	1014	1020	1024	1024	287
25°	921	920	931	937	941	424
35°	785	790	809	818	826	491
45°	631	639	665	685	699	487
55°	470	481	515	548	562	419
65°	308	324	368	409	424	305
75°	154	181	235	255	253	164
85°	32	56	60	55	55	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1068.7	1068.7	1068.7	1068.7	1068.7
2.5°	1073.6	1065.7	1069.7	1067.7	1063.8
5°	1069.7	1060.8	1065.7	1063.8	1063.8
7.5°	1060.8	1053.9	1057.9	1056.9	1057.9
10°	1050.0	1043.1	1049.0	1049.0	1048.1
12.5°	1035.3	1029.4	1036.3	1036.3	1037.2
15°	1018.6	1013.7	1020.5	1023.5	1024.5
17.5°	998.0	993.0	1001.9	1004.8	1007.8
20°	974.4	972.4	981.3	984.2	988.1
22.5°	947.9	947.9	956.7	960.6	966.5
25°	921.3	920.4	931.2	937.1	941.0
27.5°	889.9	890.9	904.6	910.5	915.4
30°	856.5	858.5	874.2	881.1	887.9
32.5°	821.2	825.1	842.8	850.6	857.5
35°	784.8	789.7	809.4	818.2	826.1
37.5°	748.5	755.3	776.0	784.8	793.7
40°	710.2	716.1	739.6	750.4	761.2
42.5°	670.9	678.7	702.3	718.0	730.8
45°	630.6	639.4	665.0	684.6	699.4
47.5°	590.3	602.1	626.7	653.2	666.0
50°	550.1	561.8	589.3	618.8	631.6
52.5°	508.8	520.6	552.0	582.5	596.2
55°	469.5	481.3	514.7	548.1	561.8
57.5°	428.3	441.0	478.4	512.7	526.5
60°	388.0	400.8	441.0	477.4	492.1
62.5°	348.7	362.4	404.7	443.0	457.7
65°	308.4	324.1	368.3	408.6	424.3
67.5°	269.1	286.8	333.0	375.2	391.9
70°	229.8	250.5	299.6	342.8	359.5
72.5°	191.5	214.1	266.2	309.4	318.2
75°	154.2	180.7	234.8	255.4	253.4
77.5°	118.9	148.3	199.4	203.3	209.2
80°	86.4	118.9	149.3	157.2	153.2
82.5°	57.0	89.4	107.1	103.1	102.2
85°	32.4	56.0	59.9	55.0	55.0
87.5°	13.8	22.6	19.6	14.7	13.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)