

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: P230439

Luminaire Tested: **24CZ-LD5-40SE-SQP-UNV-L950-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230439  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25695)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-40SE-SQP-UNV-L950-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH SQP LENS  
Light Source: (84) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2665.1 lumens  
Efficiency: N/A  
Efficacy: 81.9 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.42  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

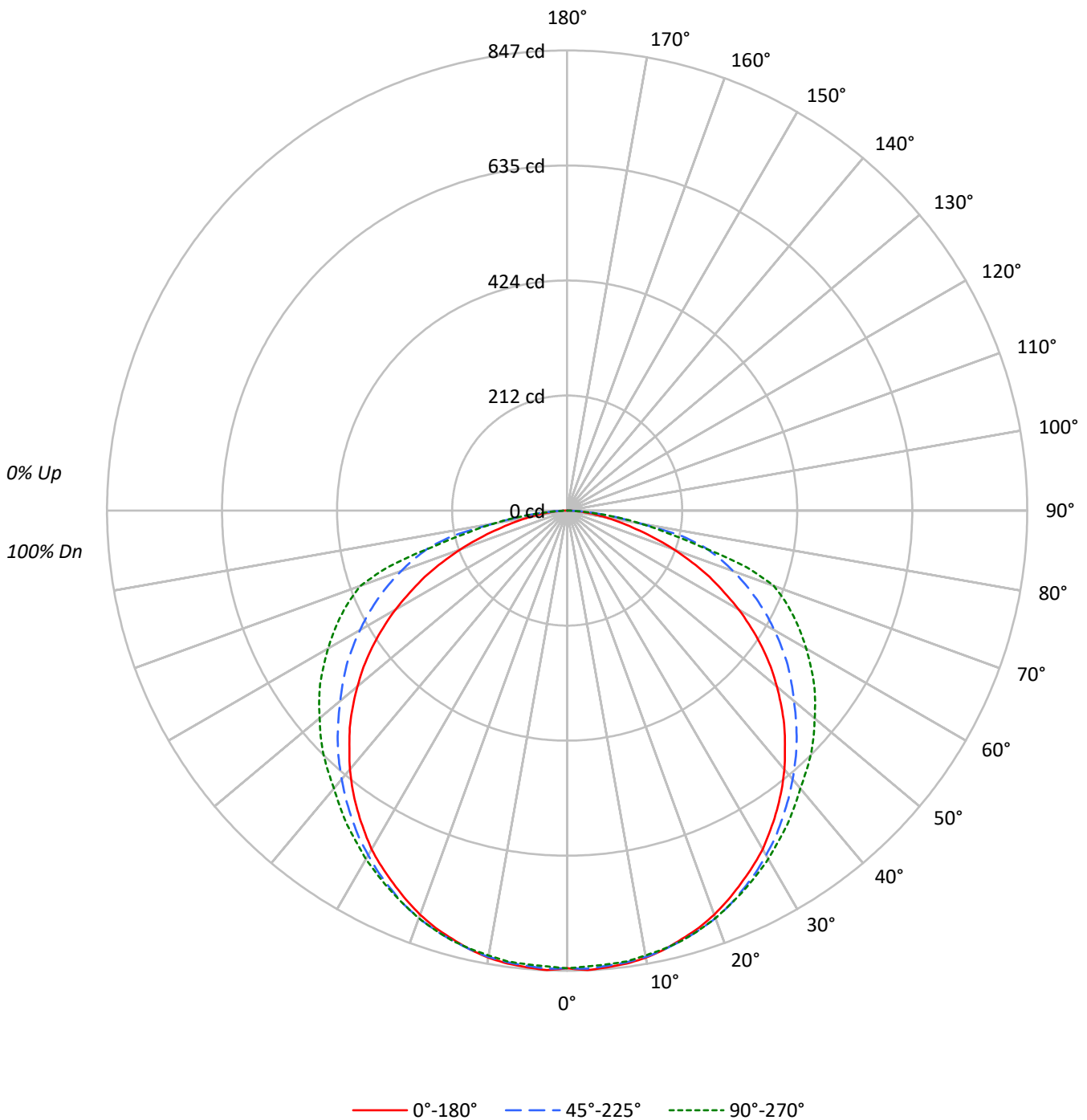
Input Watts (W): 32.55  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	101	97	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	60	70	64	59	67	63	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	51	45	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	29	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	51	38	30	24	50	37	30	24	36	29	24	35	29	24	35	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1134	1134	1134
5°	1140	1136	1132
10°	1142	1140	1136
15°	1137	1141	1141
20°	1133	1143	1143
25°	1124	1140	1144
30°	1119	1138	1151
35°	1106	1135	1160
40°	1093	1134	1173
45°	1077	1137	1208
50°	1055	1141	1245
55°	1027	1163	1301
60°	982	1185	1367
65°	920	1223	1464
70°	823	1278	1592
75°	680	1367	1317
80°	555	1056	1067
85°	446	701	659



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.0	3.0
10°-20°	230.9	8.7
20°-30°	352.9	13.2
30°-40°	431.6	16.2
40°-50°	461.8	17.3
50°-60°	442.2	16.6
60°-70°	374.1	14.0
70°-80°	237.1	8.9
80°-90°	54.6	2.0
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°	663.8	24.9
0°-40°	1095.4	41.1
0°-60°	1999.4	75.0
0°-90°	2665.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2665.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	842	842	842	842	842	
5°	844	840	841	840	838	80
15°	816	815	819	819	819	231
25°	757	757	768	771	771	349
35°	673	677	691	701	706	421
45°	566	575	598	622	635	436
55°	438	452	496	537	555	390
65°	289	317	384	436	460	285
75°	131	184	263	262	253	142
85°	29	44	45	41	43	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	842.5	842.5	842.5	842.5	842.5
2.5°	846.6	842.5	843.9	842.5	839.7
5°	843.9	839.7	841.1	839.7	838.4
7.5°	841.1	837.0	838.4	837.0	837.0
10°	835.6	831.5	834.2	832.9	831.5
12.5°	827.3	824.6	827.3	826.0	826.0
15°	816.3	815.0	819.1	819.1	819.1
17.5°	805.3	803.9	809.5	809.5	809.5
20°	791.6	790.2	798.4	798.4	798.4
22.5°	775.0	773.7	784.7	784.7	784.7
25°	757.1	757.1	768.2	770.9	770.9
27.5°	739.2	739.2	751.6	755.8	755.8
30°	720.0	720.0	732.4	737.9	740.6
32.5°	696.6	699.3	713.1	720.0	722.7
35°	673.2	677.3	691.1	700.7	706.2
37.5°	648.4	652.5	669.0	680.0	686.9
40°	622.2	627.7	645.6	659.4	667.7
42.5°	593.3	601.6	622.2	640.1	651.1
45°	565.8	575.4	597.5	622.2	634.6
47.5°	535.5	546.5	571.3	603.0	615.3
50°	503.8	514.9	545.1	580.9	594.7
52.5°	472.2	484.6	520.4	558.9	575.4
55°	437.8	451.5	495.6	536.9	554.8
57.5°	402.0	418.5	468.1	512.1	531.4
60°	364.8	385.5	440.5	487.3	508.0
62.5°	326.3	351.0	413.0	462.5	484.6
65°	289.1	316.6	384.1	436.4	459.8
67.5°	249.2	283.6	355.2	411.6	433.6
70°	209.2	249.2	324.9	382.7	404.7
72.5°	169.3	217.5	294.6	346.9	346.9
75°	130.8	184.5	262.9	261.6	253.3
77.5°	99.1	154.2	216.1	184.5	185.8
80°	71.6	123.9	136.3	136.3	137.7
82.5°	48.2	95.0	88.1	86.7	89.5
85°	28.9	44.1	45.4	41.3	42.7
87.5°	13.8	15.1	12.4	8.3	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)