

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: P230406

Luminaire Tested: **24CZ-LD5-50-SQP-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230406  
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-LD5-50-SQP-UNV-L940-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH SQP LENS  
Light Source: (168) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3040.2 lumens  
Efficiency: N/A  
Efficacy: 74.7 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

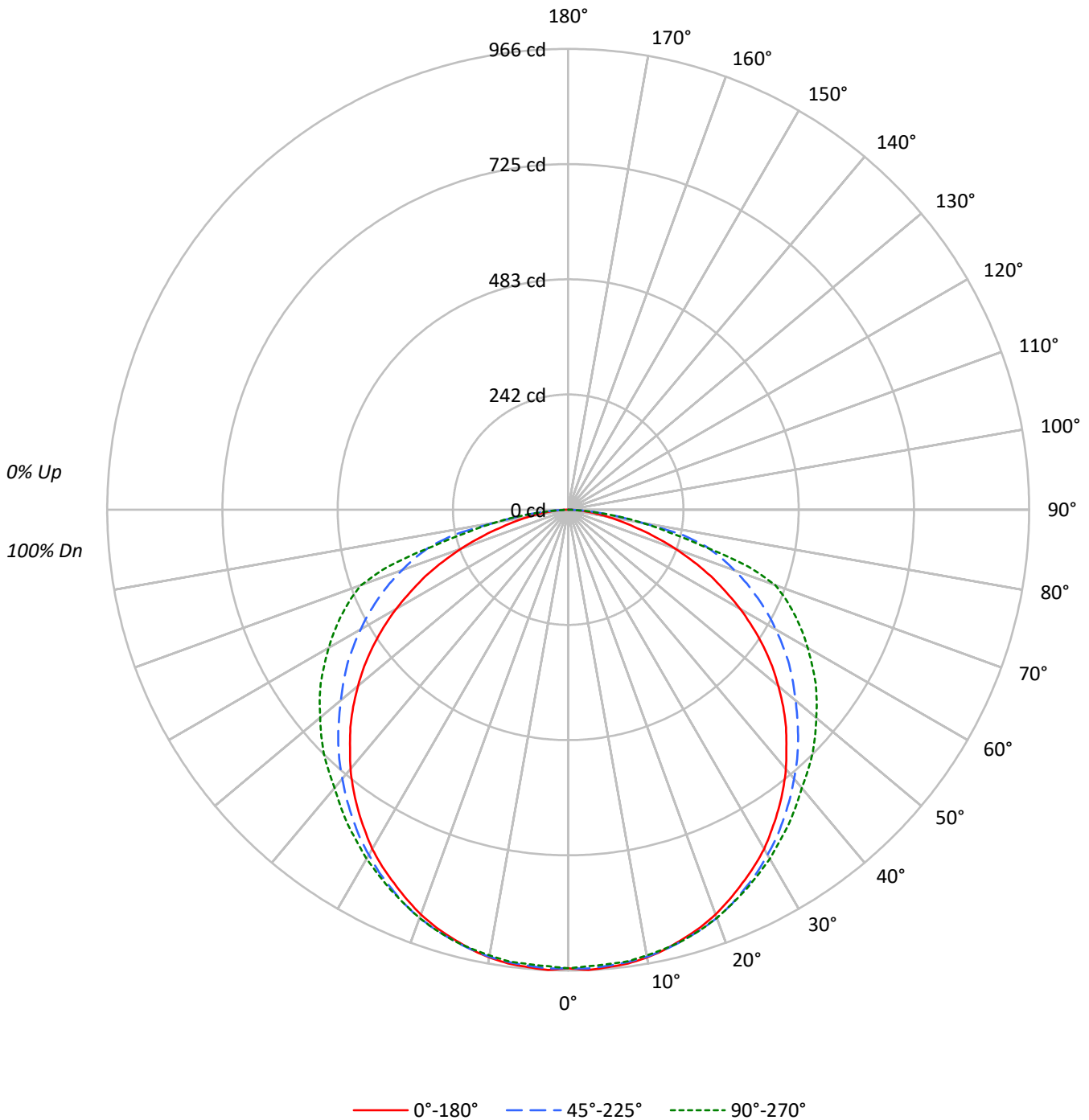
Input Watts (W): 40.68  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1293	1293	1293
5°	1300	1296	1292
10°	1302	1300	1296
15°	1297	1302	1302
20°	1293	1304	1304
25°	1282	1301	1306
30°	1276	1298	1313
35°	1261	1295	1323
40°	1247	1294	1338
45°	1228	1297	1377
50°	1203	1302	1420
55°	1171	1326	1485
60°	1120	1352	1559
65°	1050	1395	1670
70°	939	1458	1816
75°	776	1559	1502
80°	633	1205	1216
85°	509	800	752



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.3	3.0
10°-20°	263.4	8.7
20°-30°	402.5	13.2
30°-40°	492.3	16.2
40°-50°	526.8	17.3
50°-60°	504.4	16.6
60°-70°	426.7	14.0
70°-80°	270.5	8.9
80°-90°	62.2	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°	757.2	24.9
0°-40°	1249.5	41.1
0°-60°	2280.8	75.0
0°-90°	3040.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3040.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	961	961	961	961	961	
5°	963	958	960	958	956	92
15°	931	930	934	934	934	263
25°	864	864	876	879	879	398
35°	768	773	788	799	806	480
45°	645	656	682	710	724	497
55°	499	515	565	612	633	445
65°	330	361	438	498	524	325
75°	149	210	300	298	289	162
85°	33	50	52	47	49	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	961.1	961.1	961.1	961.1	961.1
2.5°	965.8	961.1	962.6	961.1	957.9
5°	962.6	957.9	959.5	957.9	956.4
7.5°	959.5	954.8	956.4	954.8	954.8
10°	953.2	948.5	951.6	950.1	948.5
12.5°	943.8	940.7	943.8	942.2	942.2
15°	931.2	929.7	934.4	934.4	934.4
17.5°	918.7	917.1	923.4	923.4	923.4
20°	903.0	901.4	910.8	910.8	910.8
22.5°	884.1	882.5	895.1	895.1	895.1
25°	863.7	863.7	876.3	879.4	879.4
27.5°	843.3	843.3	857.4	862.1	862.1
30°	821.3	821.3	835.4	841.7	844.9
32.5°	794.6	797.7	813.5	821.3	824.4
35°	767.9	772.6	788.3	799.3	805.6
37.5°	739.6	744.4	763.2	775.8	783.6
40°	709.8	716.1	736.5	752.2	761.6
42.5°	676.8	686.3	709.8	730.2	742.8
45°	645.4	656.4	681.5	709.8	723.9
47.5°	610.9	623.4	651.7	687.8	702.0
50°	574.8	587.3	621.9	662.7	678.4
52.5°	538.6	552.8	593.6	637.6	656.4
55°	499.4	515.1	565.3	612.4	632.9
57.5°	458.5	477.4	533.9	584.2	606.2
60°	416.1	439.7	502.5	555.9	579.5
62.5°	372.2	400.4	471.1	527.6	552.8
65°	329.8	361.2	438.1	497.8	524.5
67.5°	284.2	323.5	405.2	469.5	494.7
70°	238.7	284.2	370.6	436.6	461.7
72.5°	193.2	248.1	336.1	395.7	395.7
75°	149.2	210.4	299.9	298.4	288.9
77.5°	113.1	175.9	246.5	210.4	212.0
80°	81.7	141.3	155.5	155.5	157.0
82.5°	55.0	108.4	100.5	98.9	102.1
85°	33.0	50.3	51.8	47.1	48.7
87.5°	15.7	17.3	14.1	9.4	9.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)