

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: P263640

Luminaire Tested: **24CZ-LD5-50SE-RDP-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P263640  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25696)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-50SE-RDP-UNV-L93050-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH RDP LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3246.9 lumens  
Efficiency: N/A  
Efficacy: 78.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

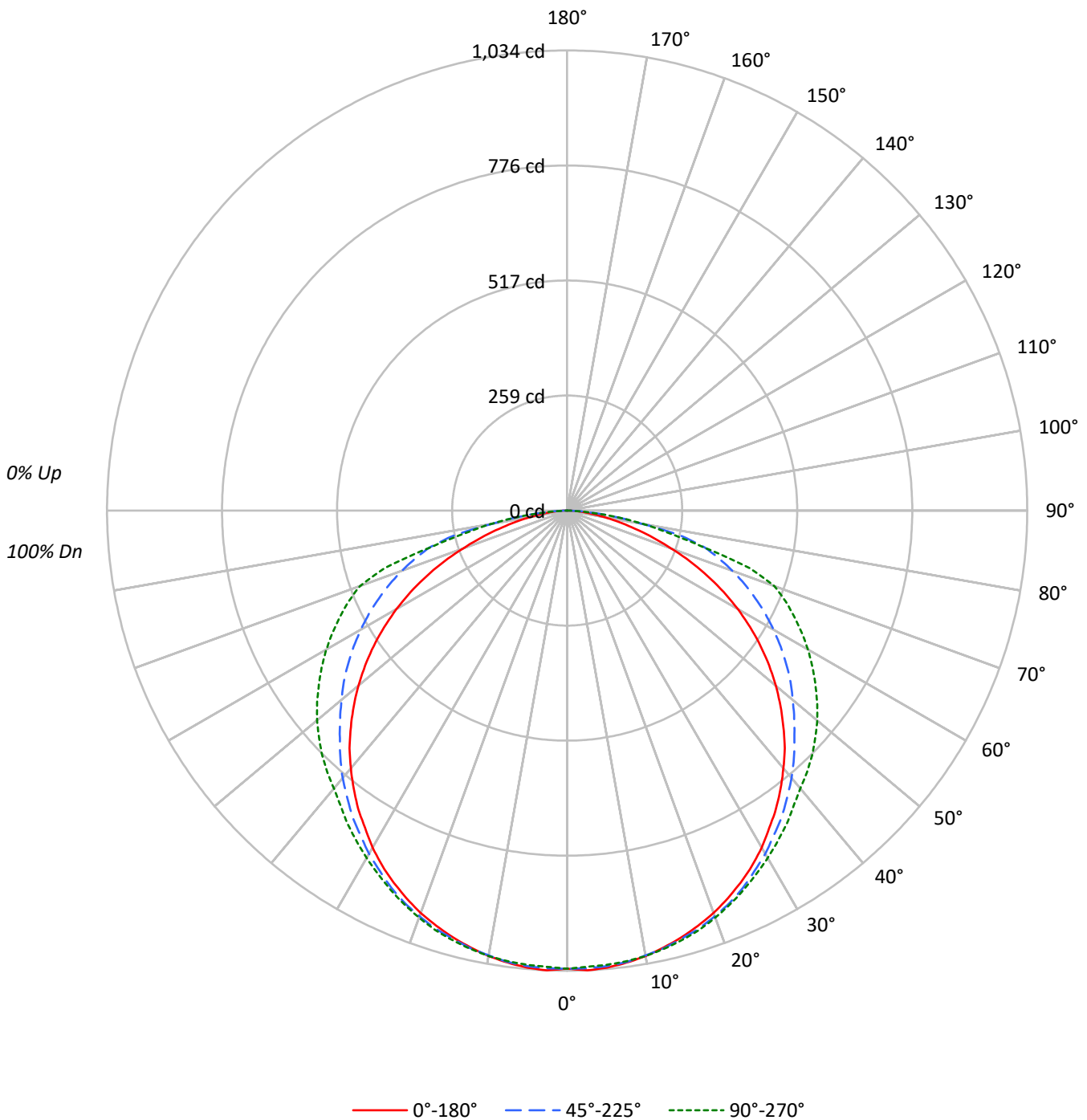
Input Watts (W): 41.378862  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	62	58	56																												
4	81	68	59	52	78	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	61	48	40	34	47	39	34	45	38	33	44	38	33	31																												
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	29	27																												
9	55	41	33	27	53	41	32	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°	1385	1385	1385
5°	1392	1388	1384
10°	1389	1387	1389
15°	1383	1387	1391
20°	1378	1389	1394
25°	1369	1388	1395
30°	1358	1383	1400
35°	1344	1381	1412
40°	1328	1378	1432
45°	1308	1375	1481
50°	1281	1385	1536
55°	1245	1410	1597
60°	1191	1441	1682
65°	1109	1486	1791
70°	981	1553	1949
75°	822	1662	1637
80°	656	1313	1362
85°	519	888	814



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.6	3.0
10°-20°	281.0	8.7
20°-30°	429.2	13.2
30°-40°	524.7	16.2
40°-50°	561.6	17.3
50°-60°	538.7	16.6
60°-70°	454.8	14.0
70°-80°	290.7	9.0
80°-90°	68.7	2.1
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°	807.7	24.9
0°-40°	1332.4	41.0
0°-60°	2432.7	74.9
0°-90°	3246.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3246.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1029	1029	1029	1029	1029	
5°	1031	1024	1028	1026	1024	98
15°	992	989	996	999	999	280
25°	922	921	935	938	940	425
35°	818	825	841	852	860	512
45°	687	698	722	756	778	530
55°	531	548	601	655	681	474
65°	348	382	467	532	563	344
75°	158	225	320	326	315	170
85°	34	56	58	56	53	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1029.3	1029.3	1029.3	1029.3	1029.3
2.5°	1034.1	1027.7	1029.3	1029.3	1026.1
5°	1030.9	1024.5	1027.7	1026.1	1024.5
7.5°	1024.5	1019.7	1022.9	1022.9	1021.3
10°	1016.5	1011.7	1014.9	1016.5	1016.5
12.5°	1005.3	1002.1	1006.9	1006.9	1008.5
15°	992.5	989.4	995.7	998.9	998.9
17.5°	978.2	976.6	984.6	986.2	987.8
20°	962.2	960.6	970.2	970.2	973.4
22.5°	943.0	941.4	954.2	954.2	957.4
25°	922.2	920.6	935.0	938.2	939.8
27.5°	899.8	898.2	912.6	917.4	920.6
30°	874.3	874.3	890.3	896.7	901.4
32.5°	845.5	850.3	864.7	874.3	880.7
35°	818.3	824.7	840.7	851.9	859.9
37.5°	788.0	794.4	811.9	826.3	835.9
40°	756.0	764.0	784.8	800.8	815.1
42.5°	724.0	732.0	754.4	778.4	797.6
45°	687.3	698.5	722.4	756.0	778.4
47.5°	650.5	661.7	692.1	733.6	756.0
50°	612.2	624.9	661.7	709.6	733.6
52.5°	572.2	586.6	632.9	684.1	708.1
55°	530.6	548.2	601.0	655.3	680.9
57.5°	487.5	506.7	569.0	626.5	653.7
60°	442.7	466.7	535.4	596.2	624.9
62.5°	396.4	425.1	501.9	564.2	594.6
65°	348.4	382.0	466.7	532.2	562.6
67.5°	298.9	343.6	431.5	500.3	530.6
70°	249.3	302.1	394.8	465.1	495.5
72.5°	203.0	263.7	358.0	423.6	429.9
75°	158.2	225.4	319.7	326.1	314.9
77.5°	118.3	187.0	263.7	235.0	233.4
80°	84.7	150.2	169.4	174.2	175.8
82.5°	55.9	113.5	110.3	113.5	111.9
85°	33.6	55.9	57.5	55.9	52.7
87.5°	16.0	20.8	16.0	14.4	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)