

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: P263178

Luminaire Tested: **24CZ-LD5-60-SQP-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263178
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-LD5-60-SQP-UNV-L93050-W2A1-U-3500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH SQP LENS
Light Source: (336) 90 CRI LEDS TUNED AT 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3394.2 lumens
Efficiency: N/A
Efficacy: 75.2 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

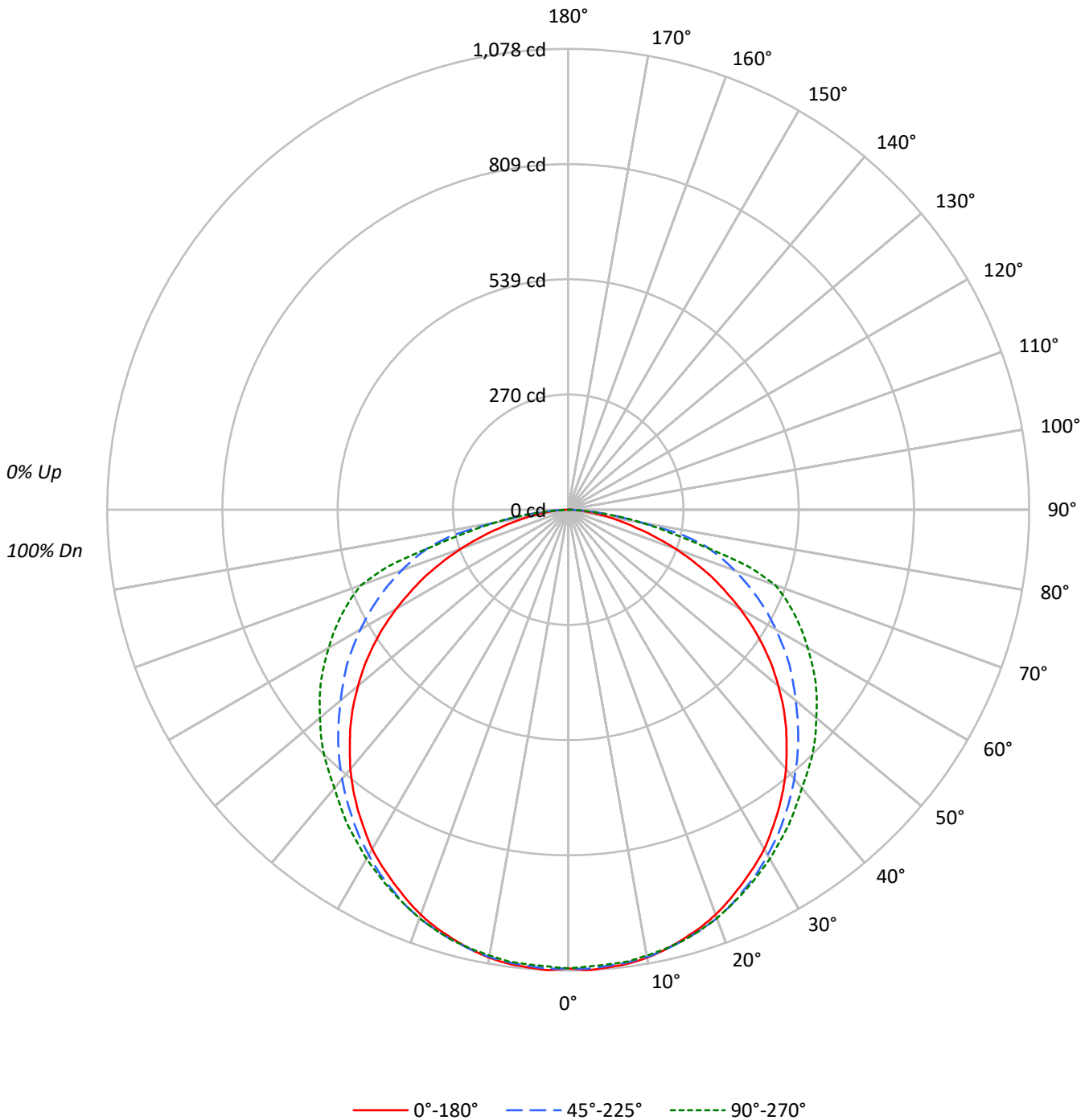
Input Watts (W): 45.109092
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1444	1444	1444
5°	1452	1447	1442
10°	1454	1452	1447
15°	1448	1453	1453
20°	1443	1456	1456
25°	1432	1452	1458
30°	1425	1449	1465
35°	1408	1446	1477
40°	1392	1444	1493
45°	1371	1448	1538
50°	1343	1453	1585
55°	1308	1481	1657
60°	1250	1510	1741
65°	1172	1557	1864
70°	1048	1628	2028
75°	866	1741	1677
80°	707	1345	1358
85°	568	894	838



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.9	3.0
10°-20°	294.1	8.7
20°-30°	449.4	13.2
30°-40°	549.7	16.2
40°-50°	588.1	17.3
50°-60°	563.2	16.6
60°-70°	476.4	14.0
70°-80°	302.0	8.9
80°-90°	69.5	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°	845.4	24.9
0°-40°	1395.0	41.1
0°-60°	2546.3	75.0
0°-90°	3394.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3394.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1073	1073	1073	1073	1073	
5°	1075	1070	1071	1070	1068	102
15°	1040	1038	1043	1043	1043	294
25°	964	964	978	982	982	445
35°	857	863	880	892	899	536
45°	721	733	761	792	808	555
55°	558	575	631	684	706	497
65°	368	403	489	556	586	363
75°	167	235	335	333	323	181
85°	37	56	58	53	54	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1073.0	1073.0	1073.0	1073.0	1073.0
2.5°	1078.2	1073.0	1074.7	1073.0	1069.5
5°	1074.7	1069.5	1071.2	1069.5	1067.7
7.5°	1071.2	1066.0	1067.7	1066.0	1066.0
10°	1064.2	1058.9	1062.5	1060.7	1058.9
12.5°	1053.7	1050.2	1053.7	1051.9	1051.9
15°	1039.7	1037.9	1043.2	1043.2	1043.2
17.5°	1025.6	1023.9	1030.9	1030.9	1030.9
20°	1008.1	1006.3	1016.9	1016.9	1016.9
22.5°	987.1	985.3	999.3	999.3	999.3
25°	964.3	964.3	978.3	981.8	981.8
27.5°	941.5	941.5	957.3	962.5	962.5
30°	916.9	916.9	932.7	939.7	943.2
32.5°	887.1	890.6	908.2	916.9	920.4
35°	857.3	862.6	880.1	892.4	899.4
37.5°	825.8	831.0	852.1	866.1	874.9
40°	792.5	799.5	822.3	839.8	850.3
42.5°	755.6	766.2	792.5	815.2	829.3
45°	720.6	732.8	760.9	792.5	808.2
47.5°	682.0	696.0	727.6	767.9	783.7
50°	641.7	655.7	694.3	739.9	757.4
52.5°	601.4	617.1	662.7	711.8	732.8
55°	557.5	575.1	631.2	683.8	706.5
57.5°	511.9	533.0	596.1	652.2	676.7
60°	464.6	490.9	561.0	620.6	646.9
62.5°	415.5	447.1	526.0	589.1	617.1
65°	368.2	403.2	489.1	555.8	585.6
67.5°	317.3	361.2	452.3	524.2	552.3
70°	266.5	317.3	413.8	487.4	515.4
72.5°	215.6	277.0	375.2	441.8	441.8
75°	166.6	234.9	334.9	333.1	322.6
77.5°	126.2	196.4	275.3	234.9	236.7
80°	91.2	157.8	173.6	173.6	175.3
82.5°	61.4	121.0	112.2	110.5	114.0
85°	36.8	56.1	57.9	52.6	54.3
87.5°	17.5	19.3	15.8	10.5	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)