

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: P230452

Luminaire Tested: **24CZ-LD5-60SE-SQP-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230452
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-LD5-60SE-SQP-UNV-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (84) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3411.2 lumens
Efficiency: N/A
Efficacy: 56.9 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

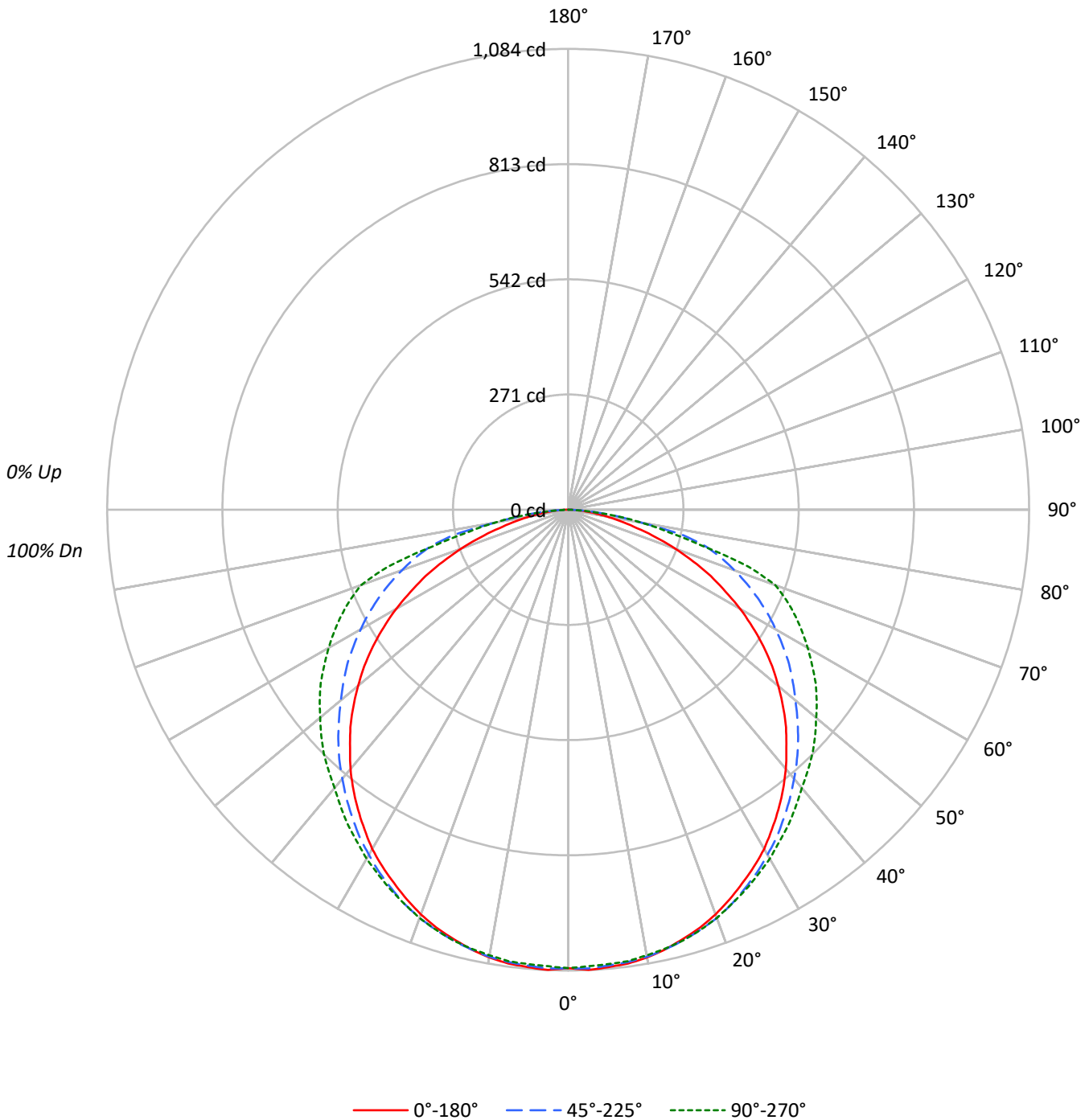
Input Watts (W): 60
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1451	1451	1451
5°	1459	1454	1449
10°	1461	1459	1454
15°	1455	1460	1460
20°	1451	1463	1463
25°	1439	1460	1465
30°	1432	1456	1473
35°	1415	1453	1485
40°	1399	1451	1501
45°	1378	1455	1546
50°	1350	1460	1593
55°	1314	1488	1666
60°	1256	1517	1750
65°	1178	1565	1874
70°	1054	1636	2038
75°	870	1749	1685
80°	710	1351	1365
85°	571	897	843



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	3.0
10°-20°	295.5	8.7
20°-30°	451.7	13.2
30°-40°	552.4	16.2
40°-50°	591.1	17.3
50°-60°	566.0	16.6
60°-70°	478.8	14.0
70°-80°	303.5	8.9
80°-90°	69.8	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°	849.6	24.9
0°-40°	1402.0	41.1
0°-60°	2559.1	75.0
0°-90°	3411.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3411.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1078	1078	1078	1078	1078	
5°	1080	1075	1077	1075	1073	103
15°	1045	1043	1048	1048	1048	295
25°	969	969	983	987	987	447
35°	862	867	884	897	904	539
45°	724	736	765	796	812	558
55°	560	578	634	687	710	500
65°	370	405	492	558	588	364
75°	167	236	336	335	324	182
85°	37	56	58	53	55	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1078.3	1078.3	1078.3	1078.3	1078.3
2.5°	1083.6	1078.3	1080.1	1078.3	1074.8
5°	1080.1	1074.8	1076.6	1074.8	1073.0
7.5°	1076.6	1071.3	1073.0	1071.3	1071.3
10°	1069.5	1064.2	1067.8	1066.0	1064.2
12.5°	1059.0	1055.4	1059.0	1057.2	1057.2
15°	1044.9	1043.1	1048.4	1048.4	1048.4
17.5°	1030.8	1029.0	1036.0	1036.0	1036.0
20°	1013.1	1011.4	1022.0	1022.0	1022.0
22.5°	992.0	990.2	1004.3	1004.3	1004.3
25°	969.1	969.1	983.2	986.7	986.7
27.5°	946.2	946.2	962.0	967.3	967.3
30°	921.5	921.5	937.4	944.4	947.9
32.5°	891.6	895.1	912.7	921.5	925.0
35°	861.6	866.9	884.5	896.9	903.9
37.5°	829.9	835.2	856.3	870.4	879.2
40°	796.4	803.5	826.4	844.0	854.6
42.5°	759.4	770.0	796.4	819.3	833.4
45°	724.2	736.5	764.7	796.4	812.3
47.5°	685.4	699.5	731.2	771.7	787.6
50°	644.9	659.0	697.7	743.6	761.2
52.5°	604.4	620.2	666.0	715.4	736.5
55°	560.3	577.9	634.3	687.2	710.1
57.5°	514.5	535.6	599.1	655.5	680.1
60°	466.9	493.4	563.8	623.7	650.2
62.5°	417.6	449.3	528.6	592.0	620.2
65°	370.0	405.3	491.6	558.5	588.5
67.5°	318.9	363.0	454.6	526.8	555.0
70°	267.8	318.9	415.8	489.8	518.0
72.5°	216.7	278.4	377.1	444.0	444.0
75°	167.4	236.1	336.5	334.8	324.2
77.5°	126.9	197.3	276.6	236.1	237.9
80°	91.6	158.6	174.4	174.4	176.2
82.5°	61.7	121.6	112.8	111.0	114.5
85°	37.0	56.4	58.1	52.9	54.6
87.5°	17.6	19.4	15.9	10.6	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)