

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: P230412

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230412
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-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (168) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3489.9 lumens
Efficiency: N/A
Efficacy: 66.9 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

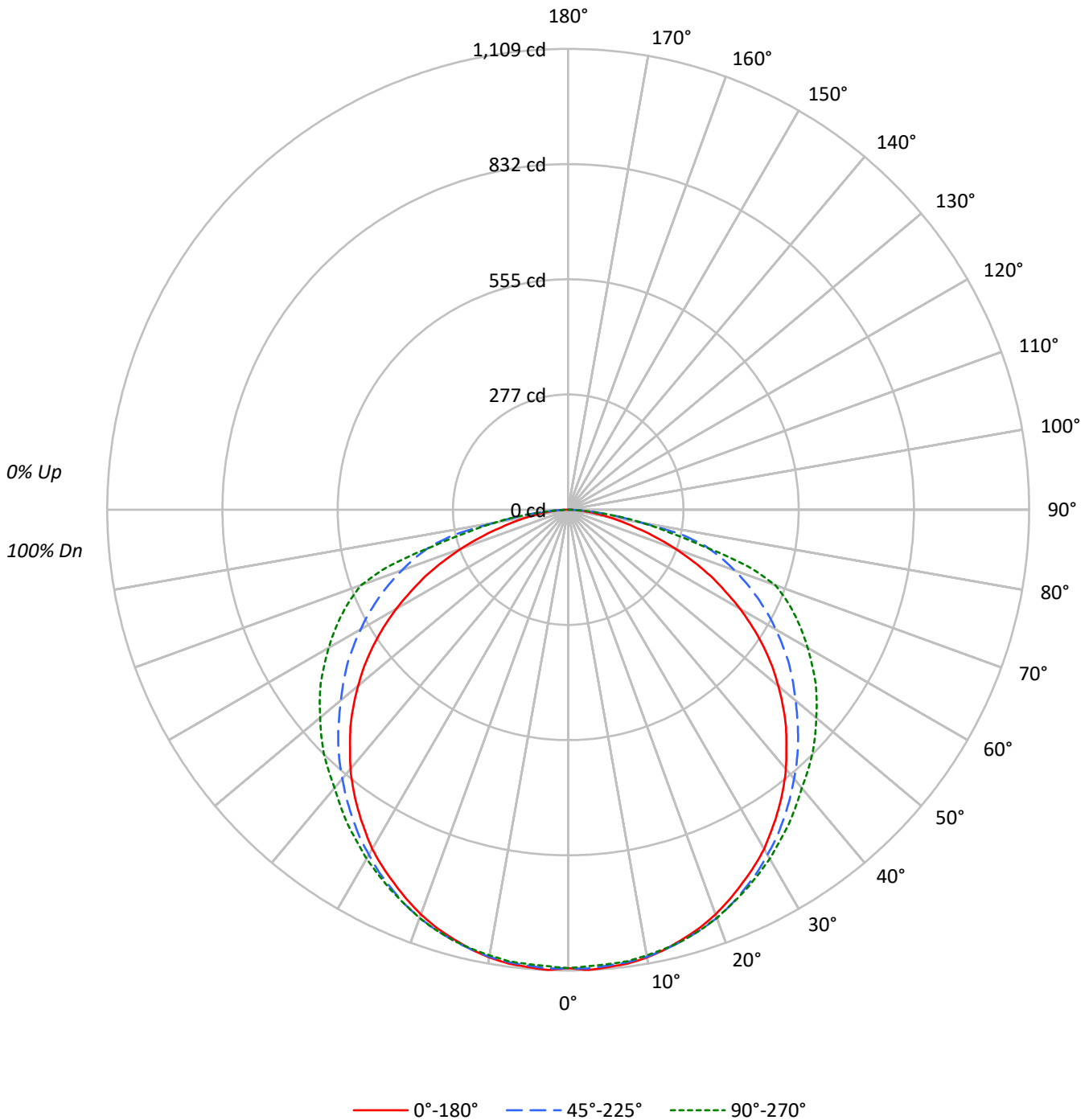
Input Watts (W): 52.17
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P230412

CATALOG NUMBER: 24CZ-LD5-60-SQP-UNV-L930-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P230412

CATALOG NUMBER: 24CZ-LD5-60-SQP-UNV-L930-CD1-U

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°	1484	1484	1484
5°	1492	1488	1483
10°	1495	1492	1488
15°	1489	1494	1494
20°	1484	1497	1497
25°	1472	1493	1499
30°	1465	1490	1507
35°	1448	1486	1519
40°	1431	1485	1536
45°	1410	1489	1581
50°	1381	1494	1630
55°	1345	1522	1704
60°	1285	1552	1790
65°	1205	1601	1917
70°	1078	1674	2085
75°	891	1790	1724
80°	726	1383	1397
85°	585	919	863



TEST NUMBER: P230412

CATALOG NUMBER: 24CZ-LD5-60-SQP-UNV-L930-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.8	3.0
10°-20°	302.3	8.7
20°-30°	462.1	13.2
30°-40°	565.2	16.2
40°-50°	604.7	17.3
50°-60°	579.1	16.6
60°-70°	489.8	14.0
70°-80°	310.5	8.9
80°-90°	71.4	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°	869.2	24.9
0°-40°	1434.4	41.1
0°-60°	2618.2	75.0
0°-90°	3489.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3489.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1103	1103	1103	1103	1103	
5°	1105	1100	1101	1100	1098	105
15°	1069	1067	1073	1073	1073	302
25°	992	992	1006	1010	1010	457
35°	882	887	905	918	925	551
45°	741	754	782	815	831	571
55°	573	591	649	703	726	511
65°	379	415	503	571	602	373
75°	171	242	344	342	332	186
85°	38	58	60	54	56	45
90°	0	0	0	0	0	



TEST NUMBER: P230412

CATALOG NUMBER: 24CZ-LD5-60-SQP-UNV-L930-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1103.2	1103.2	1103.2	1103.2	1103.2
2.5°	1108.6	1103.2	1105.0	1103.2	1099.6
5°	1105.0	1099.6	1101.4	1099.6	1097.8
7.5°	1101.4	1096.0	1097.8	1096.0	1096.0
10°	1094.2	1088.8	1092.4	1090.6	1088.8
12.5°	1083.4	1079.8	1083.4	1081.6	1081.6
15°	1069.0	1067.2	1072.6	1072.6	1072.6
17.5°	1054.6	1052.8	1060.0	1060.0	1060.0
20°	1036.5	1034.7	1045.5	1045.5	1045.5
22.5°	1014.9	1013.1	1027.5	1027.5	1027.5
25°	991.5	991.5	1005.9	1009.5	1009.5
27.5°	968.0	968.0	984.3	989.7	989.7
30°	942.8	942.8	959.0	966.2	969.8
32.5°	912.1	915.8	933.8	942.8	946.4
35°	881.5	886.9	904.9	917.6	924.8
37.5°	849.1	854.5	876.1	890.5	899.5
40°	814.8	822.0	845.4	863.5	874.3
42.5°	776.9	787.8	814.8	838.2	852.7
45°	740.9	753.5	782.4	814.8	831.0
47.5°	701.2	715.7	748.1	789.6	805.8
50°	659.8	674.2	713.9	760.7	778.8
52.5°	618.3	634.5	681.4	731.9	753.5
55°	573.2	591.3	649.0	703.0	726.5
57.5°	526.4	548.0	612.9	670.6	695.8
60°	477.7	504.7	576.9	638.1	665.2
62.5°	427.2	459.7	540.8	605.7	634.5
65°	378.6	414.6	502.9	571.4	602.1
67.5°	326.3	371.3	465.1	539.0	567.8
70°	274.0	326.3	425.4	501.1	530.0
72.5°	221.7	284.8	385.8	454.3	454.3
75°	171.3	241.6	344.3	342.5	331.7
77.5°	129.8	201.9	283.0	241.6	243.4
80°	93.7	162.2	178.5	178.5	180.3
82.5°	63.1	124.4	115.4	113.6	117.2
85°	37.9	57.7	59.5	54.1	55.9
87.5°	18.0	19.8	16.2	10.8	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)