

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: P230020

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230020
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-60SE-UNV-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (84) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4938.0 lumens
Efficiency: N/A
Efficacy: 82.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

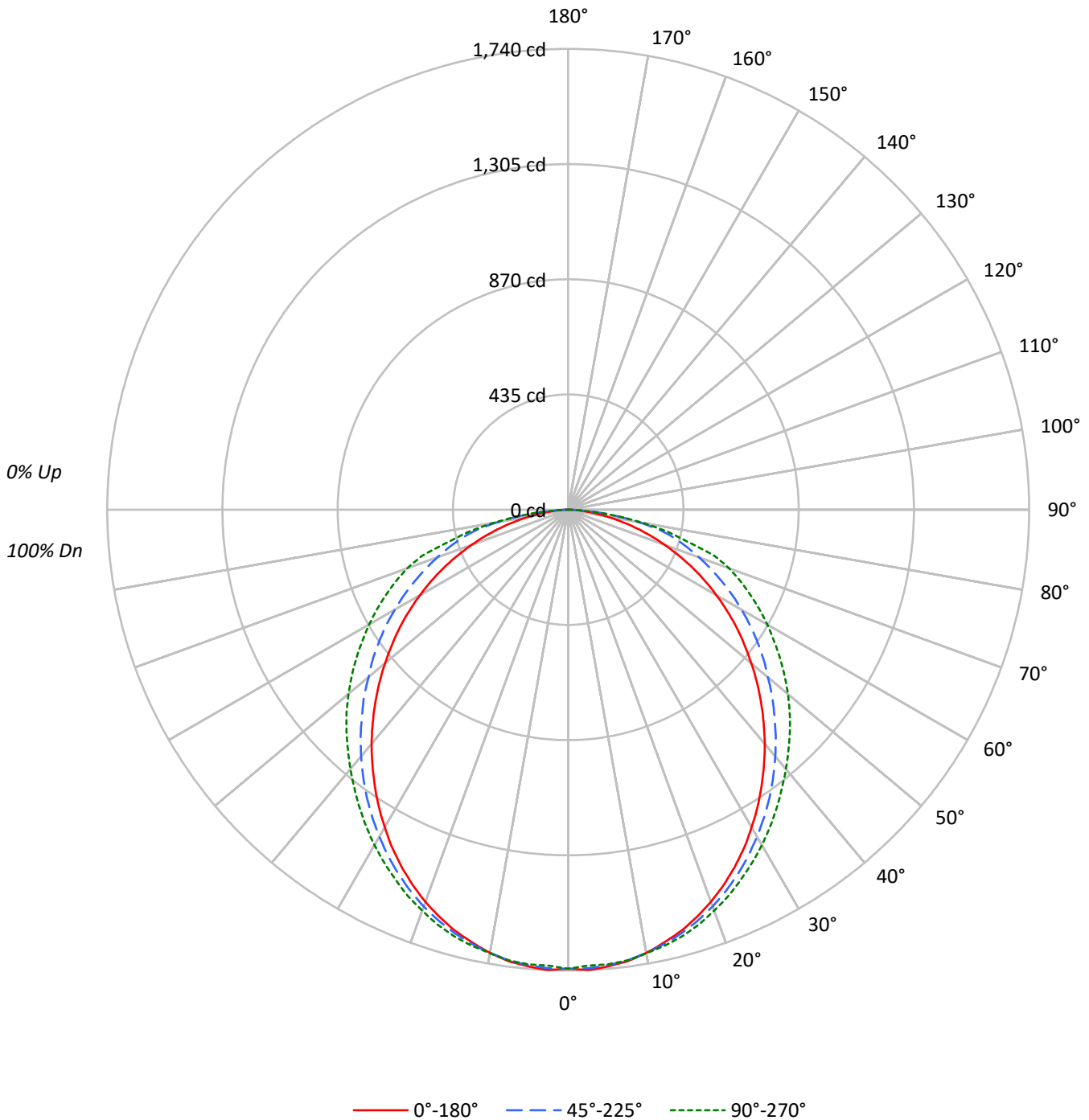
Input Watts (W): 60
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P230020

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

Luminous Intensity Polar Plot





TEST NUMBER: P230020

CATALOG NUMBER: 24CZ-LD5-60SE-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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2332	2332	2332
5°	2338	2331	2327
10°	2322	2322	2324
15°	2294	2306	2322
20°	2256	2283	2307
25°	2209	2252	2289
30°	2151	2214	2272
35°	2091	2177	2255
40°	2028	2135	2245
45°	1959	2094	2252
50°	1890	2060	2265
55°	1820	2046	2288
60°	1738	2034	2334
65°	1647	2035	2411
70°	1523	2068	2541
75°	1363	2162	2417
80°	1140	2070	2214
85°	861	1592	1514



TEST NUMBER: P230020

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.8	3.3
10°-20°	466.1	9.4
20°-30°	696.8	14.1
30°-40°	826.6	16.7
40°-50°	850.8	17.2
50°-60°	780.5	15.8
60°-70°	631.0	12.8
70°-80°	409.5	8.3
80°-90°	112.9	2.3
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°	1326.6	26.9
0°-40°	2153.2	43.6
0°-60°	3784.5	76.6
0°-90°	4938.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4938.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1733	1733	1733	1733	1733	
5°	1731	1720	1726	1724	1723	164
15°	1647	1640	1655	1662	1667	464
25°	1488	1490	1517	1530	1542	685
35°	1273	1283	1326	1354	1373	796
45°	1030	1047	1101	1153	1184	795
55°	776	800	872	943	976	693
65°	517	548	639	724	757	511
75°	262	311	416	465	465	279
85°	56	95	103	100	98	68
90°	0	0	0	0	0	



TEST NUMBER: P230020

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1733.0	1733.0	1733.0	1733.0	1733.0
2.5°	1739.7	1726.2	1733.0	1731.3	1722.8
5°	1731.3	1719.5	1726.2	1724.5	1722.8
7.5°	1719.5	1707.6	1716.1	1714.4	1716.1
10°	1699.2	1689.0	1699.2	1700.9	1700.9
12.5°	1673.8	1665.4	1678.9	1682.3	1685.6
15°	1646.8	1640.0	1655.2	1662.0	1667.0
17.5°	1612.9	1607.9	1626.5	1634.9	1641.7
20°	1575.7	1574.1	1594.3	1602.8	1611.2
22.5°	1533.5	1533.5	1557.1	1567.3	1579.1
25°	1487.8	1489.5	1516.6	1530.1	1541.9
27.5°	1438.8	1440.5	1472.6	1489.5	1503.0
30°	1384.7	1391.5	1425.3	1447.3	1462.5
32.5°	1330.6	1339.0	1376.2	1401.6	1418.5
35°	1273.1	1283.3	1325.5	1354.3	1372.9
37.5°	1213.9	1225.8	1271.4	1303.5	1325.5
40°	1154.8	1168.3	1215.6	1252.8	1278.2
42.5°	1092.2	1107.4	1159.8	1203.8	1230.8
45°	1029.6	1046.6	1100.7	1153.1	1183.5
47.5°	967.1	987.4	1044.9	1102.3	1134.5
50°	902.8	923.1	984.0	1049.9	1082.1
52.5°	838.6	862.3	929.9	997.5	1029.6
55°	776.0	799.7	872.4	943.4	975.5
57.5°	711.8	735.5	814.9	889.3	921.4
60°	645.9	672.9	755.7	831.8	867.3
62.5°	581.6	610.3	698.3	779.4	813.2
65°	517.4	547.8	639.1	723.6	757.4
67.5°	451.4	486.9	581.6	667.8	703.3
70°	387.2	426.1	525.8	612.0	645.9
72.5°	324.6	366.9	470.0	557.9	578.2
75°	262.1	311.1	415.9	464.9	464.9
77.5°	202.9	257.0	355.0	373.6	383.8
80°	147.1	206.3	267.1	289.1	285.7
82.5°	98.1	157.2	191.1	191.1	186.0
85°	55.8	94.7	103.1	99.8	98.1
87.5°	23.7	35.5	32.1	25.4	22.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)