

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: P230012

Luminaire Tested: **24CZ-LD5-50SE-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230012
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-LD5-50SE-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: 4213.0 lumens
Efficiency: N/A
Efficacy: 90.5 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

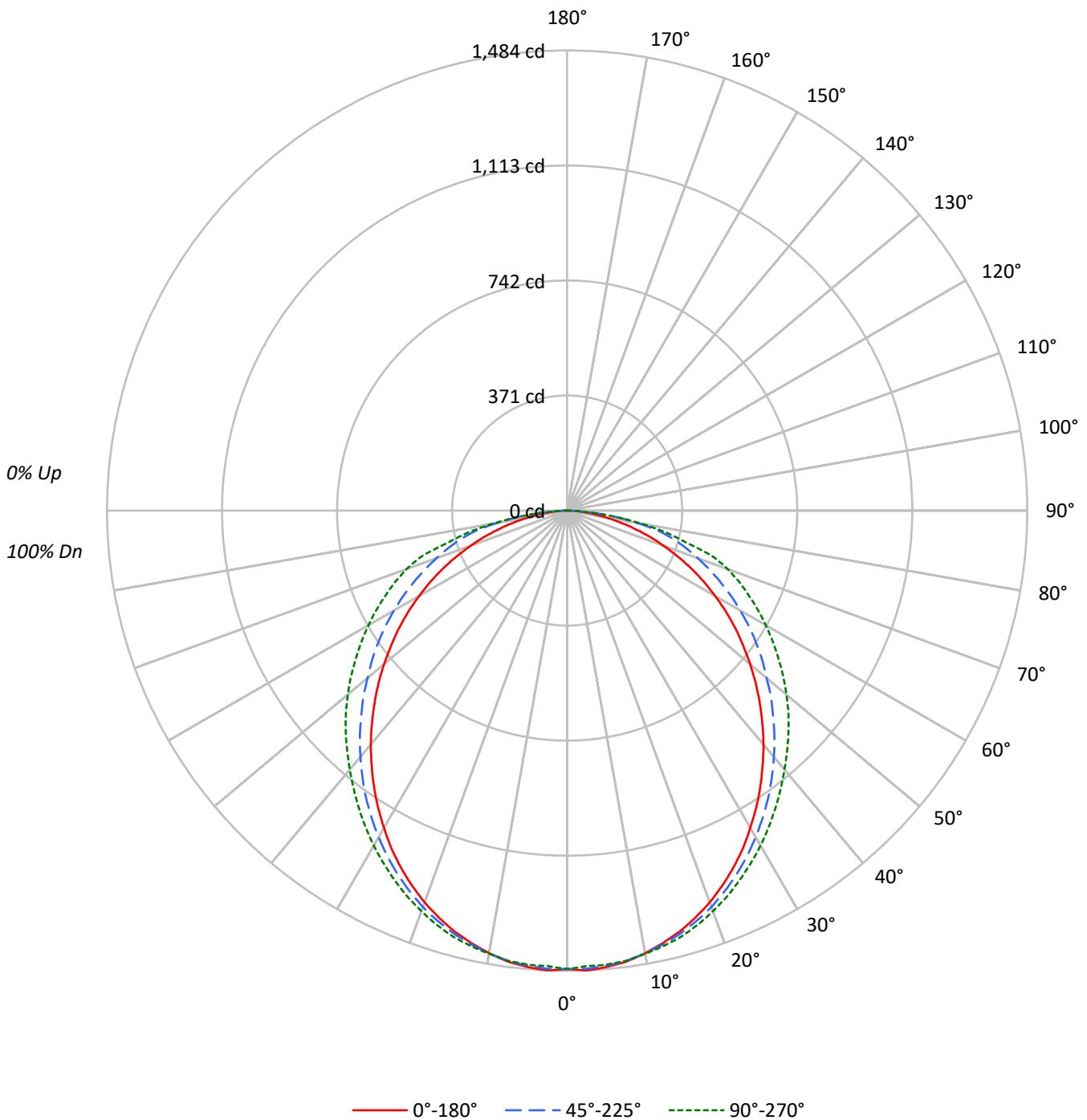
Input Watts (W): 46.56
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1989	1989	1989
5°	1995	1989	1985
10°	1981	1981	1983
15°	1957	1967	1981
20°	1925	1948	1968
25°	1885	1921	1953
30°	1835	1889	1938
35°	1784	1858	1924
40°	1730	1822	1915
45°	1672	1787	1921
50°	1612	1757	1932
55°	1553	1746	1952
60°	1483	1735	1991
65°	1405	1736	2057
70°	1299	1765	2168
75°	1162	1845	2062
80°	972	1766	1889
85°	735	1359	1292



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.7	3.3
10°-20°	397.7	9.4
20°-30°	594.5	14.1
30°-40°	705.2	16.7
40°-50°	725.9	17.2
50°-60°	665.9	15.8
60°-70°	538.4	12.8
70°-80°	349.4	8.3
80°-90°	96.4	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°	1131.8	26.9
0°-40°	1837.1	43.6
0°-60°	3228.8	76.6
0°-90°	4213.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4213.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1478	1478	1478	1478	1478	
5°	1477	1467	1473	1471	1470	140
15°	1405	1399	1412	1418	1422	396
25°	1269	1271	1294	1305	1316	584
35°	1086	1095	1131	1155	1171	679
45°	878	893	939	984	1010	678
55°	662	682	744	805	832	592
65°	441	467	545	617	646	436
75°	224	265	355	397	397	238
85°	48	81	88	85	84	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1478.5	1478.5	1478.5	1478.5	1478.5
2.5°	1484.3	1472.8	1478.5	1477.1	1469.9
5°	1477.1	1467.0	1472.8	1471.3	1469.9
7.5°	1467.0	1456.9	1464.1	1462.7	1464.1
10°	1449.7	1441.0	1449.7	1451.1	1451.1
12.5°	1428.1	1420.8	1432.4	1435.3	1438.2
15°	1405.0	1399.2	1412.2	1418.0	1422.3
17.5°	1376.1	1371.8	1387.7	1394.9	1400.6
20°	1344.4	1343.0	1360.3	1367.5	1374.7
22.5°	1308.3	1308.3	1328.5	1337.2	1347.3
25°	1269.4	1270.8	1293.9	1305.4	1315.5
27.5°	1227.6	1229.0	1256.4	1270.8	1282.4
30°	1181.4	1187.2	1216.0	1234.8	1247.7
32.5°	1135.2	1142.4	1174.2	1195.8	1210.2
35°	1086.2	1094.8	1130.9	1155.4	1171.3
37.5°	1035.7	1045.8	1084.7	1112.2	1130.9
40°	985.2	996.8	1037.1	1068.9	1090.5
42.5°	931.8	944.8	989.5	1027.0	1050.1
45°	878.5	892.9	939.1	983.8	1009.7
47.5°	825.1	842.4	891.5	940.5	967.9
50°	770.3	787.6	839.5	895.8	923.2
52.5°	715.5	735.7	793.4	851.1	878.5
55°	662.1	682.3	744.3	804.9	832.3
57.5°	607.3	627.5	695.3	758.7	786.2
60°	551.0	574.1	644.8	709.7	740.0
62.5°	496.2	520.7	595.7	665.0	693.8
65°	441.4	467.4	545.3	617.4	646.2
67.5°	385.1	415.4	496.2	569.8	600.1
70°	330.3	363.5	448.6	522.2	551.0
72.5°	277.0	313.0	401.0	476.0	493.3
75°	223.6	265.4	354.9	396.7	396.7
77.5°	173.1	219.3	302.9	318.8	327.4
80°	125.5	176.0	227.9	246.7	243.8
82.5°	83.7	134.2	163.0	163.0	158.7
85°	47.6	80.8	88.0	85.1	83.7
87.5°	20.2	30.3	27.4	21.6	18.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)