

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: P230014

Luminaire Tested: **24CZ-LD5-50SE-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230014
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-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4487.0 lumens
Efficiency: N/A
Efficacy: 96.4 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

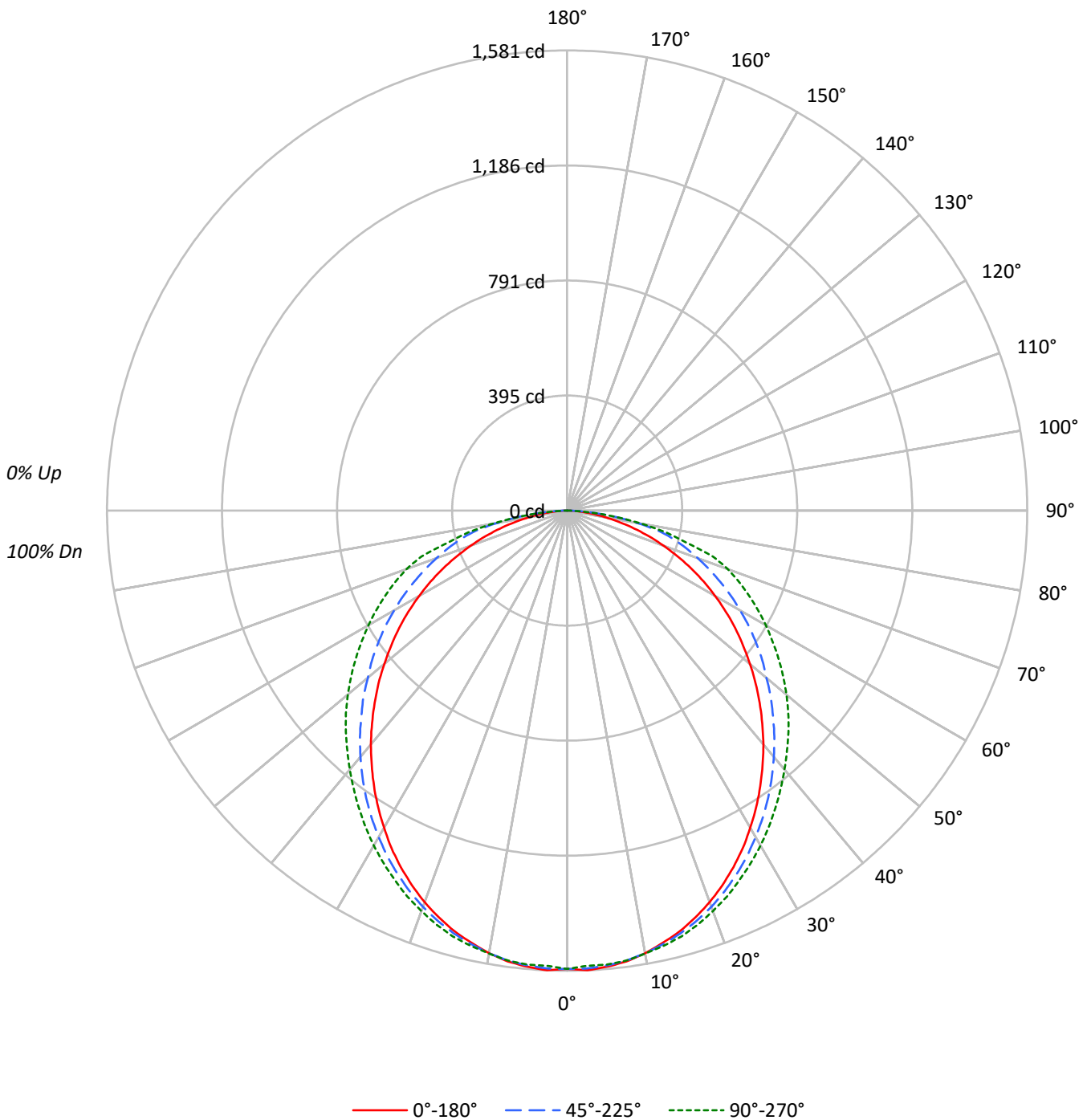
Input Watts (W): 46.56
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2119	2119	2119
5°	2125	2119	2114
10°	2109	2109	2112
15°	2084	2095	2110
20°	2050	2074	2096
25°	2007	2046	2080
30°	1955	2012	2065
35°	1900	1978	2049
40°	1843	1940	2040
45°	1780	1903	2046
50°	1717	1872	2058
55°	1654	1860	2079
60°	1579	1848	2121
65°	1497	1849	2191
70°	1384	1880	2309
75°	1238	1965	2196
80°	1036	1881	2011
85°	783	1447	1376



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.8	3.3
10°-20°	423.5	9.4
20°-30°	633.1	14.1
30°-40°	751.1	16.7
40°-50°	773.1	17.2
50°-60°	709.2	15.8
60°-70°	573.4	12.8
70°-80°	372.1	8.3
80°-90°	102.6	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°	1205.5	26.9
0°-40°	1956.6	43.6
0°-60°	3438.8	76.6
0°-90°	4487.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4487.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1575	1575	1575	1575	1575	
5°	1573	1562	1569	1567	1566	149
15°	1496	1490	1504	1510	1515	422
25°	1352	1354	1378	1390	1401	622
35°	1157	1166	1204	1231	1248	723
45°	936	951	1000	1048	1075	722
55°	705	727	793	857	886	630
65°	470	498	581	658	688	465
75°	238	283	378	422	422	253
85°	51	86	94	91	89	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1574.7	1574.7	1574.7	1574.7	1574.7
2.5°	1580.8	1568.6	1574.7	1573.2	1565.5
5°	1573.2	1562.4	1568.6	1567.0	1565.5
7.5°	1562.4	1551.7	1559.3	1557.8	1559.3
10°	1544.0	1534.8	1544.0	1545.5	1545.5
12.5°	1520.9	1513.3	1525.5	1528.6	1531.7
15°	1496.4	1490.2	1504.0	1510.2	1514.8
17.5°	1465.6	1461.0	1477.9	1485.6	1491.7
20°	1431.8	1430.3	1448.7	1456.4	1464.1
22.5°	1393.4	1393.4	1414.9	1424.1	1434.9
25°	1351.9	1353.5	1378.1	1390.3	1401.1
27.5°	1307.4	1308.9	1338.1	1353.5	1365.8
30°	1258.2	1264.4	1295.1	1315.1	1328.9
32.5°	1209.1	1216.7	1250.5	1273.6	1289.0
35°	1156.8	1166.0	1204.5	1230.6	1247.5
37.5°	1103.1	1113.8	1155.3	1184.5	1204.5
40°	1049.3	1061.6	1104.6	1138.4	1161.4
42.5°	992.4	1006.3	1053.9	1093.8	1118.4
45°	935.6	951.0	1000.1	1047.8	1075.4
47.5°	878.8	897.2	949.4	1001.7	1030.9
50°	820.4	838.8	894.1	954.0	983.2
52.5°	762.0	783.5	845.0	906.4	935.6
55°	705.2	726.7	792.7	857.3	886.4
57.5°	646.8	668.3	740.5	808.1	837.3
60°	586.9	611.4	686.7	755.9	788.1
62.5°	528.5	554.6	634.5	708.2	739.0
65°	470.1	497.8	580.7	657.5	688.3
67.5°	410.2	442.5	528.5	606.8	639.1
70°	351.8	387.1	477.8	556.1	586.9
72.5°	295.0	333.4	427.1	507.0	525.4
75°	238.1	282.7	377.9	422.5	422.5
77.5°	184.4	233.5	322.6	339.5	348.7
80°	133.7	187.4	242.7	262.7	259.6
82.5°	89.1	142.9	173.6	173.6	169.0
85°	50.7	86.0	93.7	90.6	89.1
87.5°	21.5	32.3	29.2	23.0	20.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)