

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: P230083

Luminaire Tested: **24CZ-LD5-45SE-S-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230083
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-45SE-S-UNV-L950-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4476.0 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

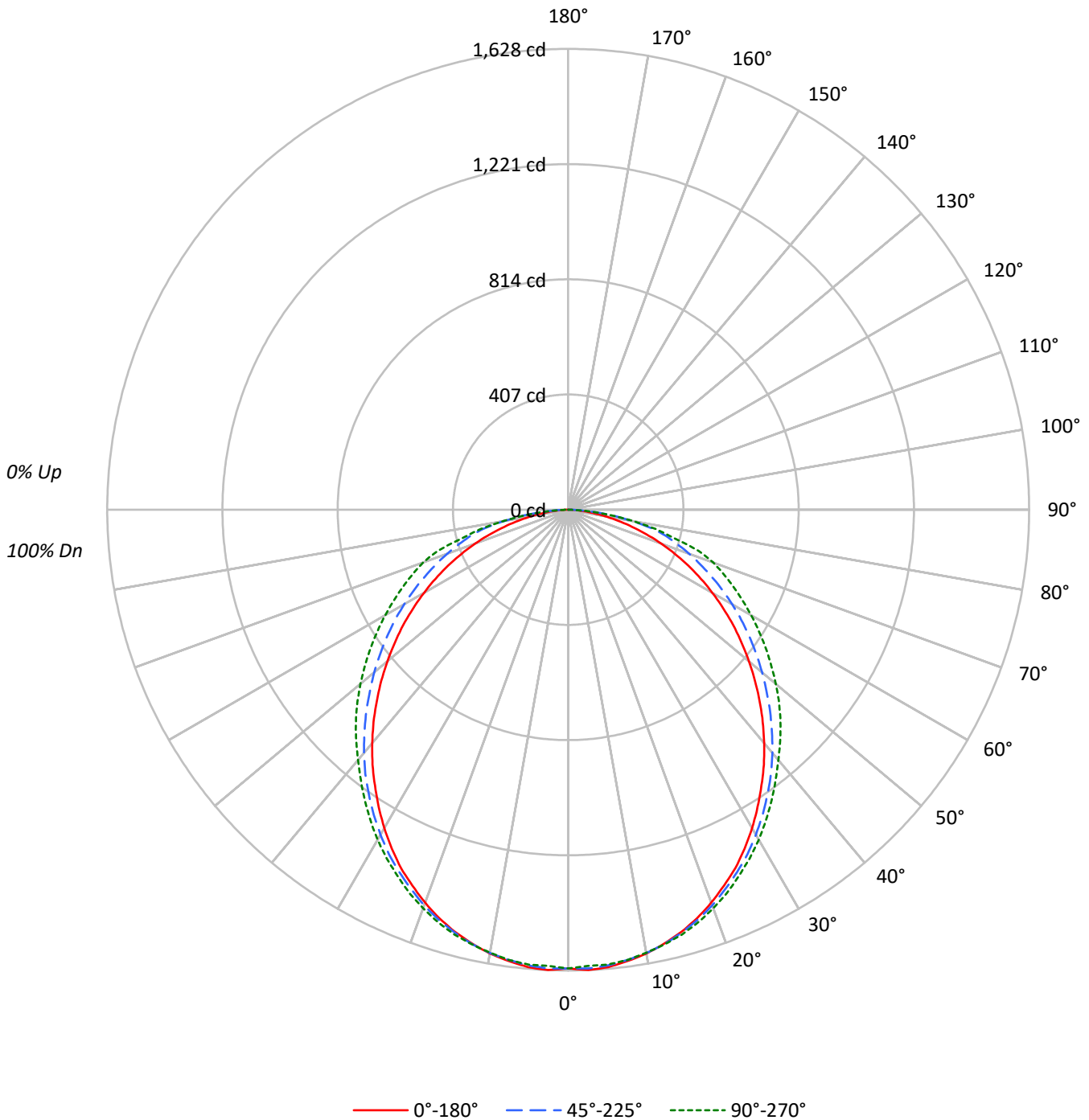
Input Watts (W): 39.91
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2180	2180	2180
5°	2191	2182	2178
10°	2175	2173	2171
15°	2151	2155	2164
20°	2115	2130	2145
25°	2074	2096	2118
30°	2018	2059	2092
35°	1955	2016	2057
40°	1891	1970	2027
45°	1819	1919	2018
50°	1746	1870	2004
55°	1670	1831	1998
60°	1583	1799	2008
65°	1489	1778	2048
70°	1371	1787	2144
75°	1215	1851	1997
80°	1016	1754	1800
85°	758	1402	1288



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.2	3.4
10°-20°	435.7	9.7
20°-30°	649.3	14.5
30°-40°	764.4	17.1
40°-50°	776.8	17.4
50°-60°	698.3	15.6
60°-70°	551.7	12.3
70°-80°	350.0	7.8
80°-90°	96.6	2.2
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°	1238.2	27.7
0°-40°	2002.6	44.7
0°-60°	3477.7	77.7
0°-90°	4476.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4476.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1620	1620	1620	1620	1620	
5°	1622	1608	1616	1613	1613	154
15°	1544	1537	1547	1552	1553	435
25°	1397	1396	1412	1421	1427	642
35°	1190	1197	1227	1241	1252	744
45°	956	970	1008	1038	1060	738
55°	712	730	780	831	852	636
65°	468	492	558	620	643	463
75°	234	274	356	387	384	249
85°	49	85	91	83	83	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1620.4	1620.4	1620.4	1620.4	1620.4
2.5°	1627.8	1615.9	1621.9	1618.9	1612.9
5°	1621.9	1608.5	1615.9	1612.9	1612.9
7.5°	1608.5	1598.1	1604.0	1602.5	1604.0
10°	1592.1	1581.7	1590.6	1590.6	1589.1
12.5°	1569.8	1560.8	1571.2	1571.2	1572.7
15°	1544.4	1537.0	1547.4	1551.9	1553.4
17.5°	1513.2	1505.7	1519.1	1523.6	1528.1
20°	1477.4	1474.4	1487.8	1492.3	1498.3
22.5°	1437.2	1437.2	1450.6	1456.6	1465.5
25°	1397.0	1395.5	1411.9	1420.8	1426.8
27.5°	1349.3	1350.8	1371.7	1380.6	1388.1
30°	1298.7	1301.7	1325.5	1335.9	1346.4
32.5°	1245.1	1251.0	1277.8	1289.8	1300.2
35°	1190.0	1197.4	1227.2	1240.6	1252.5
37.5°	1134.9	1145.3	1176.6	1190.0	1203.4
40°	1076.8	1085.7	1121.5	1137.9	1154.2
42.5°	1017.2	1029.1	1064.9	1088.7	1108.1
45°	956.2	969.6	1008.3	1038.1	1060.4
47.5°	895.1	913.0	950.2	990.4	1009.8
50°	834.0	851.9	893.6	938.3	957.6
52.5°	771.5	789.3	837.0	883.2	904.0
55°	711.9	729.8	780.4	831.0	851.9
57.5°	649.3	668.7	725.3	777.4	798.3
60°	588.3	607.6	668.7	723.8	746.2
62.5°	528.7	549.6	613.6	671.7	694.0
65°	467.7	491.5	558.5	619.6	643.4
67.5°	408.1	434.9	504.9	568.9	594.2
70°	348.5	379.8	454.2	519.8	545.1
72.5°	290.4	324.7	403.6	469.1	482.5
75°	233.8	274.0	356.0	387.2	384.2
77.5°	180.2	224.9	302.3	308.3	317.2
80°	131.1	180.2	226.4	238.3	232.3
82.5°	86.4	135.5	162.3	156.4	154.9
85°	49.1	84.9	90.8	83.4	83.4
87.5°	20.9	34.3	29.8	22.3	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)