

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: P261114

Luminaire Tested: **24CZ-LD5-45SE-S-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P261114
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-L93050-W2A1-U-4000K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED AT 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4243.6 lumens
Efficiency: N/A
Efficacy: 118.3 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

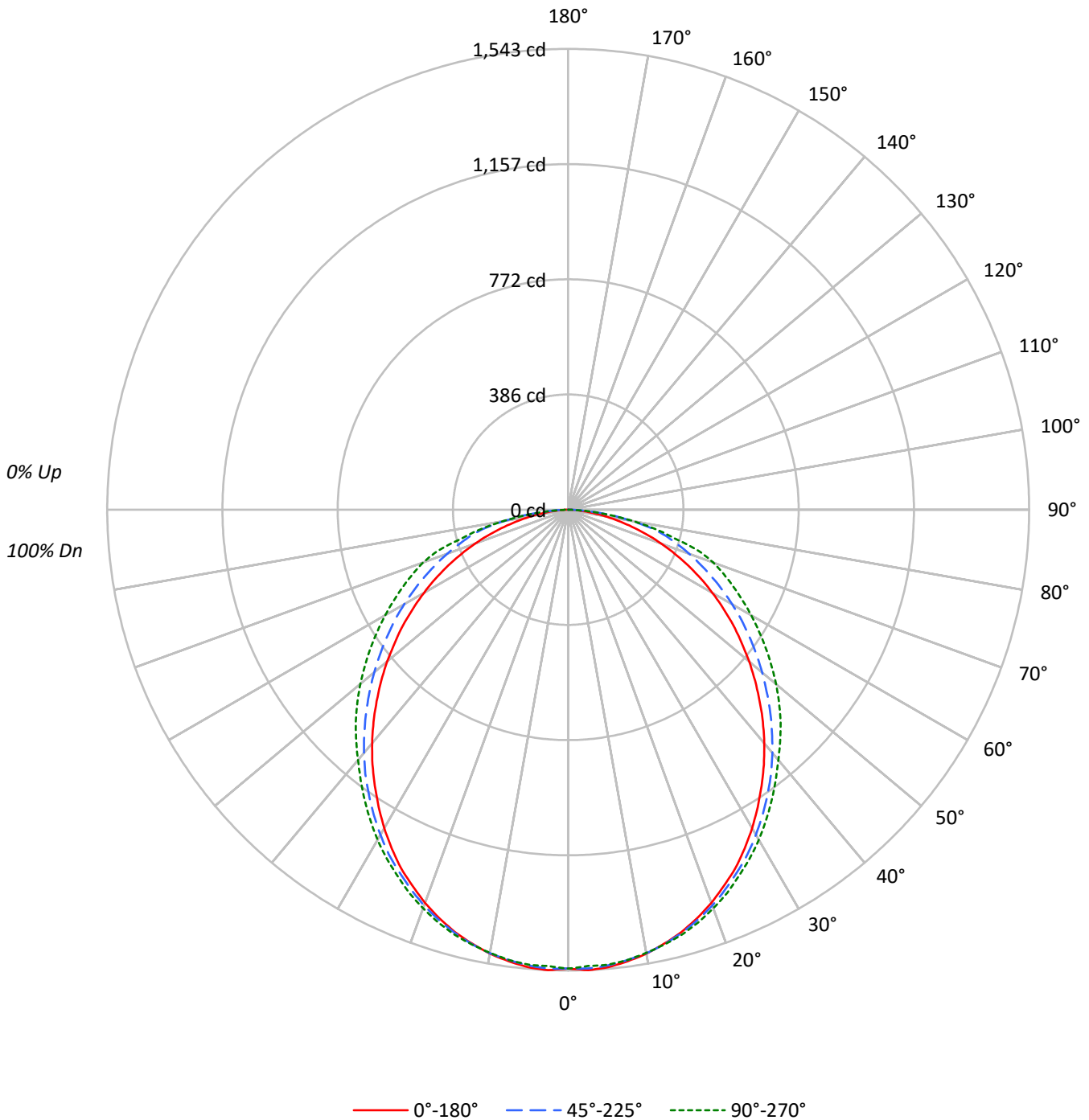
Input Watts (W): 35.877168
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2067	2067	2067
5°	2077	2069	2065
10°	2062	2060	2058
15°	2040	2044	2051
20°	2006	2020	2034
25°	1966	1987	2008
30°	1913	1952	1983
35°	1853	1911	1951
40°	1793	1867	1922
45°	1725	1819	1913
50°	1655	1773	1900
55°	1583	1736	1895
60°	1501	1706	1904
65°	1412	1686	1942
70°	1300	1694	2033
75°	1153	1755	1894
80°	963	1663	1707
85°	719	1329	1221



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.2	3.4
10°-20°	413.1	9.7
20°-30°	615.6	14.5
30°-40°	724.7	17.1
40°-50°	736.4	17.4
50°-60°	662.1	15.6
60°-70°	523.1	12.3
70°-80°	331.8	7.8
80°-90°	91.6	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°	1173.9	27.7
0°-40°	1898.6	44.7
0°-60°	3297.1	77.7
0°-90°	4243.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4243.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1536	1536	1536	1536	1536	
5°	1538	1525	1532	1529	1529	146
15°	1464	1457	1467	1471	1473	412
25°	1324	1323	1339	1347	1353	609
35°	1128	1135	1164	1176	1188	706
45°	906	919	956	984	1005	699
55°	675	692	740	788	808	603
65°	443	466	530	587	610	439
75°	222	260	338	367	364	236
85°	47	80	86	79	79	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1536.3	1536.3	1536.3	1536.3	1536.3
2.5°	1543.3	1532.0	1537.7	1534.8	1529.2
5°	1537.7	1525.0	1532.0	1529.2	1529.2
7.5°	1525.0	1515.1	1520.7	1519.3	1520.7
10°	1509.4	1499.5	1508.0	1508.0	1506.6
12.5°	1488.2	1479.8	1489.7	1489.7	1491.1
15°	1464.2	1457.2	1467.1	1471.3	1472.7
17.5°	1434.6	1427.5	1440.2	1444.5	1448.7
20°	1400.7	1397.9	1410.6	1414.8	1420.5
22.5°	1362.6	1362.6	1375.3	1380.9	1389.4
25°	1324.5	1323.0	1338.6	1347.0	1352.7
27.5°	1279.3	1280.7	1300.5	1308.9	1316.0
30°	1231.3	1234.1	1256.7	1266.6	1276.4
32.5°	1180.4	1186.1	1211.5	1222.8	1232.7
35°	1128.2	1135.2	1163.5	1176.2	1187.5
37.5°	1075.9	1085.8	1115.5	1128.2	1140.9
40°	1020.9	1029.3	1063.2	1078.8	1094.3
42.5°	964.4	975.7	1009.6	1032.2	1050.5
45°	906.5	919.2	955.9	984.2	1005.3
47.5°	848.6	865.6	900.9	939.0	957.3
50°	790.7	807.7	847.2	889.6	907.9
52.5°	731.4	748.4	793.5	837.3	857.1
55°	674.9	691.9	739.9	787.9	807.7
57.5°	615.6	634.0	687.6	737.1	756.8
60°	557.7	576.1	634.0	686.2	707.4
62.5°	501.3	521.0	581.7	636.8	658.0
65°	443.4	466.0	529.5	587.4	610.0
67.5°	386.9	412.3	478.7	539.4	563.4
70°	330.4	360.1	430.7	492.8	516.8
72.5°	275.3	307.8	382.7	444.8	457.5
75°	221.7	259.8	337.5	367.1	364.3
77.5°	170.9	213.2	286.6	292.3	300.8
80°	124.3	170.9	214.6	225.9	220.3
82.5°	81.9	128.5	153.9	148.3	146.8
85°	46.6	80.5	86.1	79.1	79.1
87.5°	19.8	32.5	28.2	21.2	19.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)