

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: P261064

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P261064
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-LD5-45-S-UNV-L93050-W2A1-U-4000K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (336) 90 CRI LEDS TUNED AT 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4199.6 lumens
Efficiency: N/A
Efficacy: 130.2 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

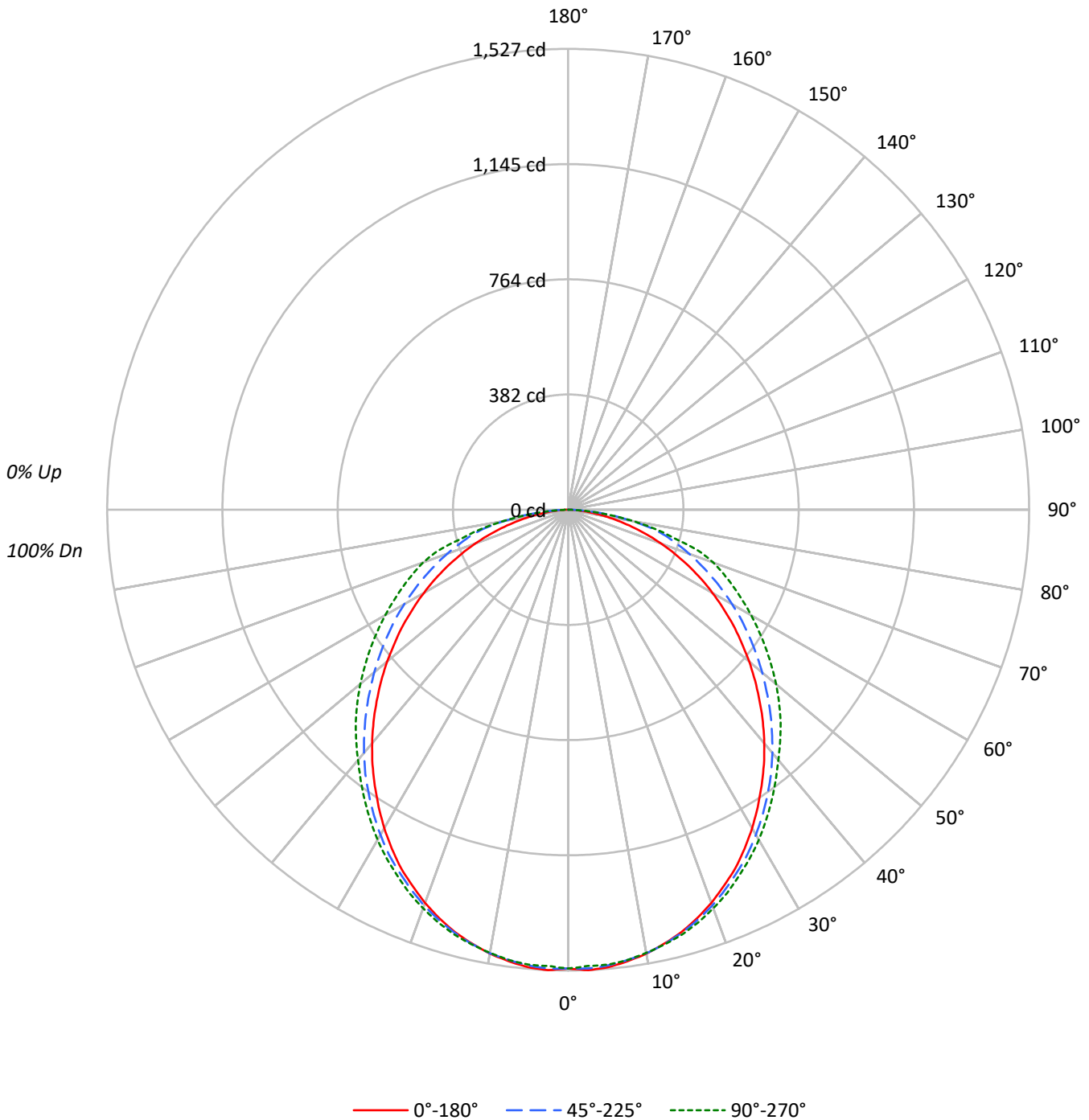
Input Watts (W): 32.251284
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2046	2046	2046
5°	2055	2048	2044
10°	2041	2039	2037
15°	2019	2022	2030
20°	1985	1999	2013
25°	1946	1967	1987
30°	1893	1932	1963
35°	1834	1891	1930
40°	1775	1848	1902
45°	1707	1800	1893
50°	1638	1755	1881
55°	1567	1718	1875
60°	1485	1688	1884
65°	1397	1668	1922
70°	1286	1677	2012
75°	1141	1736	1874
80°	953	1646	1689
85°	712	1315	1209



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.7	3.4
10°-20°	408.8	9.7
20°-30°	609.2	14.5
30°-40°	717.1	17.1
40°-50°	728.8	17.4
50°-60°	655.2	15.6
60°-70°	517.6	12.3
70°-80°	328.4	7.8
80°-90°	90.6	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°	1161.8	27.7
0°-40°	1878.9	44.7
0°-60°	3262.9	77.7
0°-90°	4199.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4199.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1520	1520	1520	1520	1520	
5°	1522	1509	1516	1513	1513	144
15°	1449	1442	1452	1456	1457	408
25°	1311	1309	1325	1333	1339	603
35°	1116	1124	1151	1164	1175	699
45°	897	910	946	974	995	692
55°	668	685	732	780	799	596
65°	439	461	524	581	604	435
75°	219	257	334	363	360	234
85°	46	80	85	78	78	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1520.3	1520.3	1520.3	1520.3	1520.3
2.5°	1527.3	1516.1	1521.7	1518.9	1513.3
5°	1521.7	1509.1	1516.1	1513.3	1513.3
7.5°	1509.1	1499.4	1505.0	1503.6	1505.0
10°	1493.8	1484.0	1492.4	1492.4	1491.0
12.5°	1472.8	1464.4	1474.2	1474.2	1475.6
15°	1449.1	1442.1	1451.9	1456.0	1457.4
17.5°	1419.7	1412.7	1425.3	1429.5	1433.7
20°	1386.2	1383.4	1396.0	1400.2	1405.7
22.5°	1348.4	1348.4	1361.0	1366.6	1375.0
25°	1310.7	1309.3	1324.7	1333.1	1338.7
27.5°	1266.0	1267.4	1287.0	1295.3	1302.3
30°	1218.5	1221.3	1243.6	1253.4	1263.2
32.5°	1168.2	1173.8	1198.9	1210.1	1219.9
35°	1116.5	1123.5	1151.4	1164.0	1175.2
37.5°	1064.8	1074.6	1103.9	1116.5	1129.1
40°	1010.3	1018.7	1052.2	1067.6	1083.0
42.5°	954.4	965.6	999.1	1021.5	1039.6
45°	897.1	909.7	946.0	974.0	994.9
47.5°	839.8	856.6	891.5	929.2	947.4
50°	782.5	799.3	838.4	880.3	898.5
52.5°	723.8	740.6	785.3	828.6	848.2
55°	667.9	684.7	732.2	779.7	799.3
57.5°	609.2	627.4	680.5	729.4	749.0
60°	552.0	570.1	627.4	679.1	700.1
62.5°	496.1	515.6	575.7	630.2	651.2
65°	438.8	461.1	524.0	581.3	603.7
67.5°	382.9	408.0	473.7	533.8	557.5
70°	327.0	356.3	426.2	487.7	511.4
72.5°	272.5	304.6	378.7	440.2	452.7
75°	219.4	257.1	334.0	363.3	360.5
77.5°	169.1	211.0	283.7	289.3	297.6
80°	123.0	169.1	212.4	223.6	218.0
82.5°	81.0	127.2	152.3	146.7	145.3
85°	46.1	79.6	85.2	78.3	78.3
87.5°	19.6	32.1	27.9	21.0	19.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)