

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: P260694

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260694
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-LD5-45SE-UNV-L93050-W2A1-U-4000K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH RIBBED LENS
Light Source: (168) 90 CRI LEDS TUNED AT 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4160.4 lumens
Efficiency: N/A
Efficacy: 116.0 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

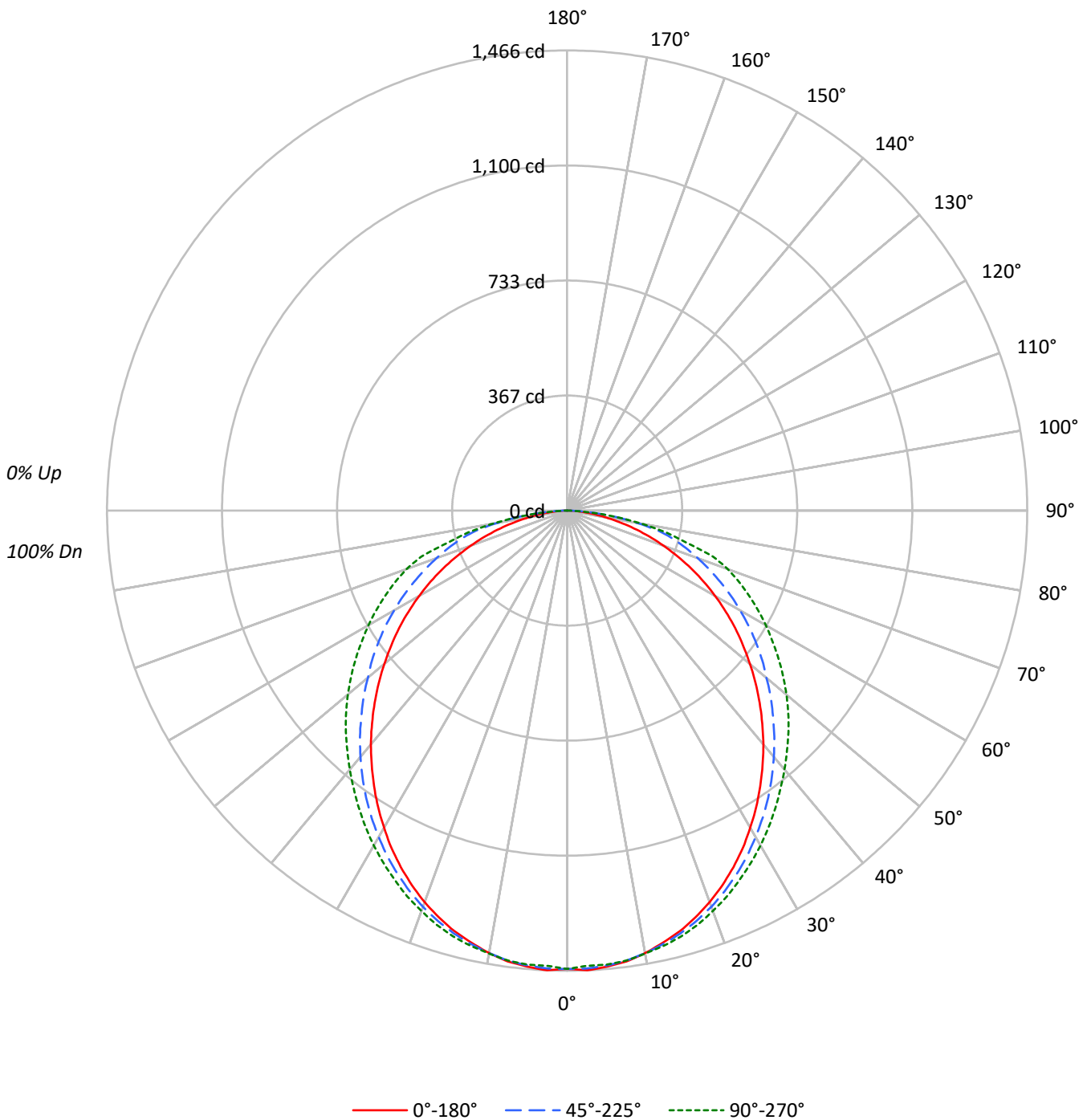
Input Watts (W): 35.877168
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1965	1965	1965
5°	1970	1964	1960
10°	1956	1956	1958
15°	1933	1943	1956
20°	1901	1923	1944
25°	1861	1897	1929
30°	1812	1866	1914
35°	1762	1834	1900
40°	1709	1799	1891
45°	1651	1764	1897
50°	1592	1735	1908
55°	1534	1724	1928
60°	1464	1713	1967
65°	1388	1714	2032
70°	1283	1743	2140
75°	1148	1822	2036
80°	960	1744	1865
85°	726	1342	1275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.0	3.3
10°-20°	392.7	9.4
20°-30°	587.0	14.1
30°-40°	696.4	16.7
40°-50°	716.8	17.2
50°-60°	657.6	15.8
60°-70°	531.7	12.8
70°-80°	345.1	8.3
80°-90°	95.2	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°	1117.7	26.9
0°-40°	1814.1	43.6
0°-60°	3188.5	76.6
0°-90°	4160.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4160.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1460	1460	1460	1460	1460	
5°	1459	1449	1454	1453	1452	138
15°	1387	1382	1395	1400	1404	391
25°	1254	1255	1278	1289	1299	577
35°	1073	1081	1117	1141	1157	671
45°	868	882	927	972	997	669
55°	654	674	735	795	822	584
65°	436	462	538	610	638	431
75°	221	262	350	392	392	235
85°	47	80	87	84	83	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1460.1	1460.1	1460.1	1460.1	1460.1
2.5°	1465.8	1454.4	1460.1	1458.7	1451.5
5°	1458.7	1448.7	1454.4	1453.0	1451.5
7.5°	1448.7	1438.7	1445.8	1444.4	1445.8
10°	1431.6	1423.0	1431.6	1433.0	1433.0
12.5°	1410.2	1403.1	1414.5	1417.3	1420.2
15°	1387.4	1381.7	1394.6	1400.2	1404.5
17.5°	1358.9	1354.7	1370.3	1377.5	1383.2
20°	1327.6	1326.2	1343.3	1350.4	1357.5
22.5°	1292.0	1292.0	1311.9	1320.5	1330.4
25°	1253.5	1255.0	1277.7	1289.1	1299.1
27.5°	1212.2	1213.6	1240.7	1255.0	1266.3
30°	1166.6	1172.3	1200.8	1219.3	1232.2
32.5°	1121.1	1128.2	1159.5	1180.9	1195.1
35°	1072.6	1081.2	1116.8	1141.0	1156.7
37.5°	1022.8	1032.7	1071.2	1098.3	1116.8
40°	972.9	984.3	1024.2	1055.5	1076.9
42.5°	920.2	933.0	977.2	1014.2	1037.0
45°	867.5	881.7	927.3	971.5	997.1
47.5°	814.8	831.9	880.3	928.8	955.8
50°	760.7	777.8	829.0	884.6	911.7
52.5°	706.5	726.5	783.5	840.4	867.5
55°	653.8	673.8	735.0	794.9	821.9
57.5°	599.7	619.6	686.6	749.3	776.3
60°	544.1	566.9	636.7	700.8	730.8
62.5°	490.0	514.2	588.3	656.7	685.2
65°	435.9	461.5	538.4	609.7	638.2
67.5°	380.3	410.2	490.0	562.7	592.6
70°	326.2	359.0	443.0	515.7	544.1
72.5°	273.5	309.1	396.0	470.1	487.2
75°	220.8	262.1	350.4	391.7	391.7
77.5°	170.9	216.5	299.1	314.8	323.4
80°	123.9	173.8	225.1	243.6	240.7
82.5°	82.6	132.5	161.0	161.0	156.7
85°	47.0	79.8	86.9	84.0	82.6
87.5°	19.9	29.9	27.1	21.4	18.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)