

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: P261112

Luminaire Tested: **24CZ-LD5-45SE-S-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P261112
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-3000K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED AT 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3596.4 lumens
Efficiency: N/A
Efficacy: 100.5 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

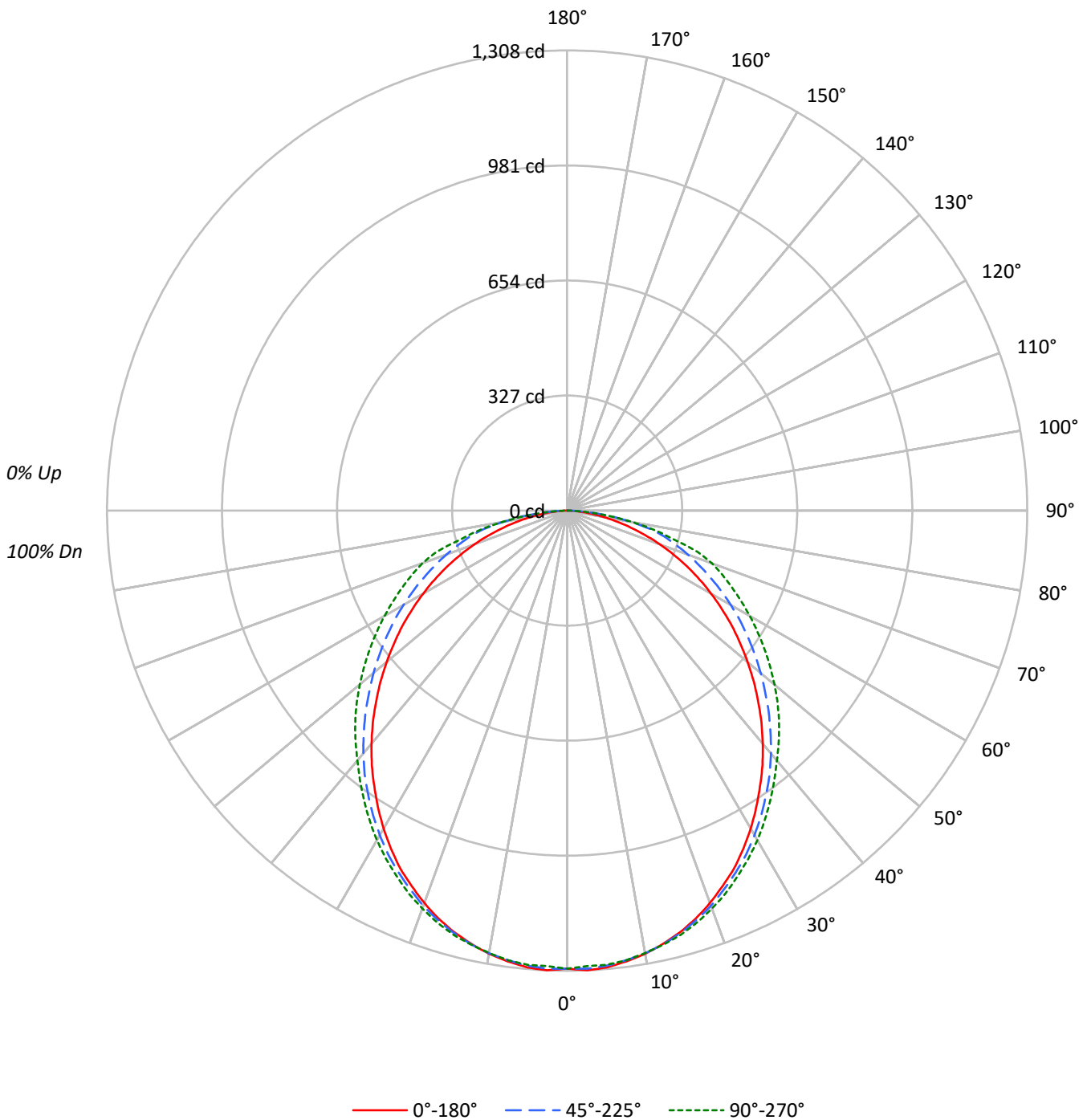
Input Watts (W): 35.772264
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1752	1752	1752
5°	1760	1754	1750
10°	1748	1746	1744
15°	1729	1732	1739
20°	1700	1712	1724
25°	1666	1684	1702
30°	1621	1655	1681
35°	1570	1620	1653
40°	1520	1583	1629
45°	1462	1541	1621
50°	1403	1503	1611
55°	1342	1471	1606
60°	1272	1446	1613
65°	1196	1429	1646
70°	1102	1436	1723
75°	977	1487	1605
80°	816	1409	1447
85°	610	1127	1034



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.1	3.4
10°-20°	350.1	9.7
20°-30°	521.7	14.5
30°-40°	614.1	17.1
40°-50°	624.1	17.4
50°-60°	561.1	15.6
60°-70°	443.3	12.3
70°-80°	281.2	7.8
80°-90°	77.6	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°	994.9	27.7
0°-40°	1609.0	44.7
0°-60°	2794.3	77.7
0°-90°	3596.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3596.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1302	1302	1302	1302	1302	
5°	1303	1292	1298	1296	1296	124
15°	1241	1235	1243	1247	1248	350
25°	1122	1121	1134	1142	1146	516
35°	956	962	986	997	1006	598
45°	768	779	810	834	852	593
55°	572	586	627	668	684	511
65°	376	395	449	498	517	372
75°	188	220	286	311	309	200
85°	40	68	73	67	67	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1302.0	1302.0	1302.0	1302.0	1302.0
2.5°	1308.0	1298.4	1303.2	1300.8	1296.0
5°	1303.2	1292.4	1298.4	1296.0	1296.0
7.5°	1292.4	1284.0	1288.8	1287.6	1288.8
10°	1279.2	1270.9	1278.0	1278.0	1276.8
12.5°	1261.3	1254.1	1262.5	1262.5	1263.7
15°	1240.9	1235.0	1243.3	1246.9	1248.1
17.5°	1215.8	1209.8	1220.6	1224.2	1227.8
20°	1187.1	1184.7	1195.5	1199.1	1203.8
22.5°	1154.8	1154.8	1165.5	1170.3	1177.5
25°	1122.5	1121.3	1134.4	1141.6	1146.4
27.5°	1084.2	1085.4	1102.1	1109.3	1115.3
30°	1043.5	1045.9	1065.0	1073.4	1081.8
32.5°	1000.4	1005.2	1026.7	1036.3	1044.7
35°	956.1	962.1	986.0	996.8	1006.4
37.5°	911.9	920.2	945.4	956.1	966.9
40°	865.2	872.4	901.1	914.2	927.4
42.5°	817.3	826.9	855.6	874.8	890.3
45°	768.3	779.0	810.1	834.1	852.0
47.5°	719.2	733.6	763.5	795.8	811.3
50°	670.1	684.5	718.0	753.9	769.5
52.5°	619.9	634.2	672.5	709.6	726.4
55°	572.0	586.4	627.1	667.7	684.5
57.5°	521.7	537.3	582.8	624.7	641.4
60°	472.7	488.2	537.3	581.6	599.5
62.5°	424.8	441.6	493.0	539.7	557.6
65°	375.8	394.9	448.7	497.8	517.0
67.5°	327.9	349.4	405.7	457.1	477.5
70°	280.0	305.1	365.0	417.6	438.0
72.5°	233.3	260.9	324.3	376.9	387.7
75°	187.9	220.2	286.0	311.1	308.7
77.5°	144.8	180.7	242.9	247.7	254.9
80°	105.3	144.8	181.9	191.5	186.7
82.5°	69.4	108.9	130.4	125.6	124.5
85°	39.5	68.2	73.0	67.0	67.0
87.5°	16.8	27.5	23.9	17.9	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)