

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: P261115

Luminaire Tested: **24CZ-LD5-45SE-S-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261115  
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-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4317.5 lumens  
Efficiency: N/A  
Efficacy: 118.5 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

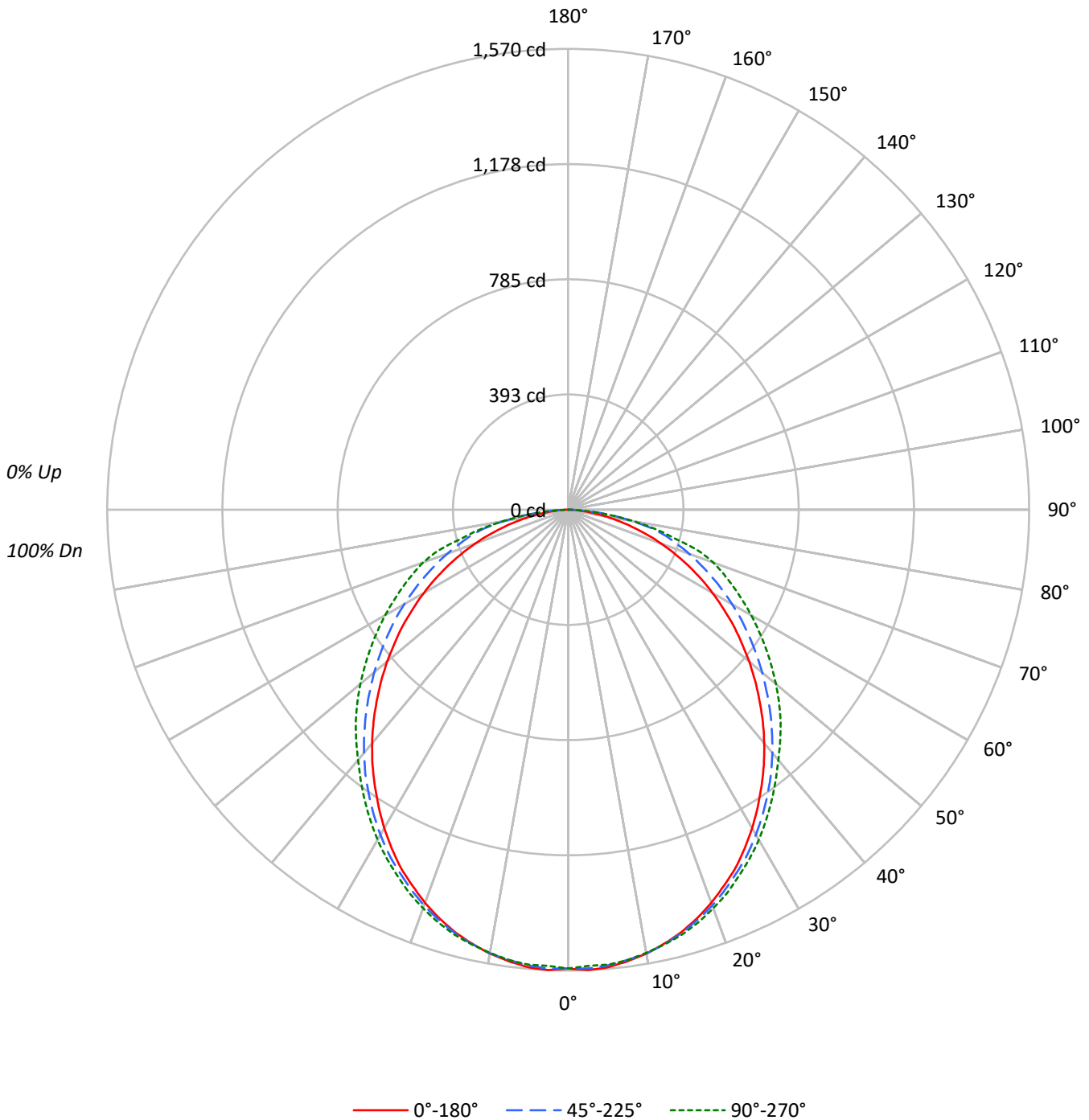
Input Watts (W): 36.436656  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2103	2103	2103
5°	2113	2105	2101
10°	2098	2096	2094
15°	2075	2079	2087
20°	2041	2055	2069
25°	2000	2022	2043
30°	1946	1986	2018
35°	1885	1944	1985
40°	1824	1900	1956
45°	1755	1851	1946
50°	1684	1804	1933
55°	1611	1766	1928
60°	1527	1736	1937
65°	1436	1715	1976
70°	1323	1724	2068
75°	1172	1785	1927
80°	979	1692	1736
85°	732	1352	1243



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.8	3.4
10°-20°	420.3	9.7
20°-30°	626.3	14.5
30°-40°	737.3	17.1
40°-50°	749.3	17.4
50°-60°	673.6	15.6
60°-70°	532.2	12.3
70°-80°	337.6	7.8
80°-90°	93.2	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°	1194.4	27.7
0°-40°	1931.7	44.7
0°-60°	3354.6	77.7
0°-90°	4317.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4317.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1563	1563	1563	1563	1563	
5°	1564	1552	1559	1556	1556	148
15°	1490	1483	1493	1497	1498	420
25°	1348	1346	1362	1370	1376	620
35°	1148	1155	1184	1197	1208	718
45°	922	935	973	1001	1023	712
55°	687	704	753	802	822	613
65°	451	474	539	598	621	447
75°	226	264	343	374	371	240
85°	47	82	88	80	80	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1563.0	1563.0	1563.0	1563.0	1563.0
2.5°	1570.2	1558.7	1564.5	1561.6	1555.8
5°	1564.5	1551.5	1558.7	1555.8	1555.8
7.5°	1551.5	1541.5	1547.2	1545.8	1547.2
10°	1535.7	1525.7	1534.3	1534.3	1532.9
12.5°	1514.2	1505.6	1515.6	1515.6	1517.1
15°	1489.8	1482.6	1492.6	1496.9	1498.4
17.5°	1459.6	1452.4	1465.3	1469.7	1474.0
20°	1425.1	1422.2	1435.2	1439.5	1445.2
22.5°	1386.3	1386.3	1399.3	1405.0	1413.6
25°	1347.5	1346.1	1361.9	1370.5	1376.3
27.5°	1301.6	1303.0	1323.1	1331.7	1338.9
30°	1252.7	1255.6	1278.6	1288.6	1298.7
32.5°	1201.0	1206.8	1232.6	1244.1	1254.2
35°	1147.9	1155.0	1183.8	1196.7	1208.2
37.5°	1094.7	1104.8	1134.9	1147.9	1160.8
40°	1038.7	1047.3	1081.8	1097.6	1113.4
42.5°	981.2	992.7	1027.2	1050.2	1068.8
45°	922.3	935.2	972.6	1001.3	1022.9
47.5°	863.4	880.6	916.6	955.3	974.0
50°	804.5	821.7	862.0	905.1	923.7
52.5°	744.2	761.4	807.4	851.9	872.0
55°	686.7	703.9	752.8	801.6	821.7
57.5°	626.4	645.0	699.6	749.9	770.0
60°	567.5	586.1	645.0	698.2	719.7
62.5°	510.0	530.1	591.9	647.9	669.5
65°	451.1	474.1	538.7	597.6	620.6
67.5°	393.6	419.5	487.0	548.8	573.2
70°	336.2	366.3	438.2	501.4	525.8
72.5°	280.1	313.2	389.3	452.5	465.5
75°	225.5	264.3	343.3	373.5	370.6
77.5°	173.8	216.9	291.6	297.4	306.0
80°	126.4	173.8	218.4	229.9	224.1
82.5°	83.3	130.7	156.6	150.8	149.4
85°	47.4	81.9	87.6	80.5	80.5
87.5°	20.1	33.0	28.7	21.5	20.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)