

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: P261240

Luminaire Tested: **24CZ-LD5-45SE-S-UNV-L82765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261240  
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-L82765-W2A1-U-3000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4365.0 lumens  
Efficiency: N/A  
Efficacy: 125.8 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

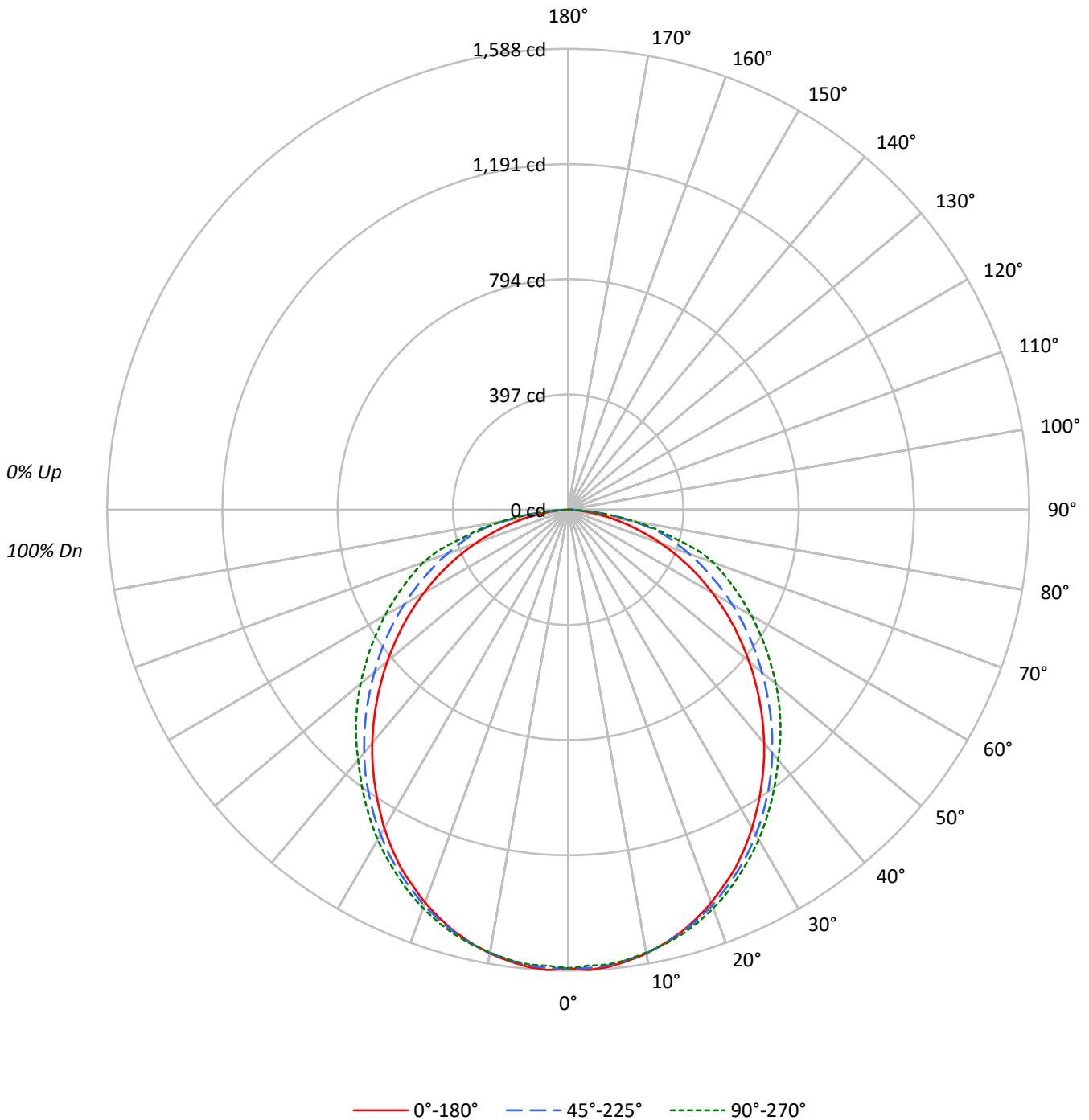
Input Watts (W): 34.689  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2126	2126	2126
5°	2136	2128	2124
10°	2121	2119	2117
15°	2098	2102	2110
20°	2063	2077	2092
25°	2023	2044	2066
30°	1968	2008	2040
35°	1906	1966	2006
40°	1844	1921	1977
45°	1774	1871	1968
50°	1702	1824	1955
55°	1628	1785	1949
60°	1544	1755	1958
65°	1452	1734	1997
70°	1337	1743	2091
75°	1185	1804	1948
80°	990	1711	1756
85°	739	1368	1255



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.4	3.4
10°-20°	424.9	9.7
20°-30°	633.2	14.5
30°-40°	745.4	17.1
40°-50°	757.5	17.4
50°-60°	681.0	15.6
60°-70°	538.0	12.3
70°-80°	341.3	7.8
80°-90°	94.2	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°	1207.5	27.7
0°-40°	1952.9	44.7
0°-60°	3391.4	77.7
0°-90°	4365.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4365.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1580	1580	1580	1580	1580	
5°	1582	1569	1576	1573	1573	150
15°	1506	1499	1509	1513	1515	424
25°	1362	1361	1377	1386	1391	626
35°	1160	1168	1197	1210	1222	726
45°	932	946	983	1012	1034	719
55°	694	712	761	810	831	620
65°	456	479	545	604	627	452
75°	228	267	347	378	375	243
85°	48	83	89	81	81	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1580.2	1580.2	1580.2	1580.2	1580.2
2.5°	1587.5	1575.9	1581.7	1578.8	1572.9
5°	1581.7	1568.6	1575.9	1572.9	1572.9
7.5°	1568.6	1558.4	1564.2	1562.8	1564.2
10°	1552.6	1542.4	1551.2	1551.2	1549.7
12.5°	1530.8	1522.1	1532.3	1532.3	1533.7
15°	1506.1	1498.9	1509.0	1513.4	1514.9
17.5°	1475.6	1468.4	1481.4	1485.8	1490.2
20°	1440.8	1437.9	1450.9	1455.3	1461.1
22.5°	1401.6	1401.6	1414.6	1420.4	1429.2
25°	1362.4	1360.9	1376.9	1385.6	1391.4
27.5°	1315.9	1317.3	1337.7	1346.4	1353.6
30°	1266.5	1269.4	1292.6	1302.8	1313.0
32.5°	1214.2	1220.0	1246.2	1257.8	1267.9
35°	1160.5	1167.7	1196.8	1209.8	1221.5
37.5°	1106.7	1116.9	1147.4	1160.5	1173.5
40°	1050.1	1058.8	1093.7	1109.6	1125.6
42.5°	992.0	1003.6	1038.5	1061.7	1080.6
45°	932.4	945.5	983.3	1012.3	1034.1
47.5°	872.9	890.3	926.6	965.8	984.7
50°	813.3	830.8	871.4	915.0	933.9
52.5°	752.3	769.8	816.2	861.3	881.6
55°	694.2	711.7	761.1	810.4	830.8
57.5°	633.2	652.1	707.3	758.2	778.5
60°	573.7	592.6	652.1	705.9	727.7
62.5°	515.6	535.9	598.4	655.0	676.8
65°	456.1	479.3	544.6	604.2	627.4
67.5°	398.0	424.1	492.4	554.8	579.5
70°	339.9	370.4	443.0	506.9	531.6
72.5°	283.2	316.6	393.6	457.5	470.6
75°	228.0	267.2	347.1	377.6	374.7
77.5°	175.7	219.3	294.8	300.6	309.4
80°	127.8	175.7	220.8	232.4	226.6
82.5°	84.2	132.2	158.3	152.5	151.0
85°	47.9	82.8	88.6	81.3	81.3
87.5°	20.3	33.4	29.0	21.8	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)