

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: P261037

Luminaire Tested: **24CZ-LD5-45SE-S-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261037  
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-L83050-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: 4368.0 lumens  
Efficiency: N/A  
Efficacy: 125.2 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

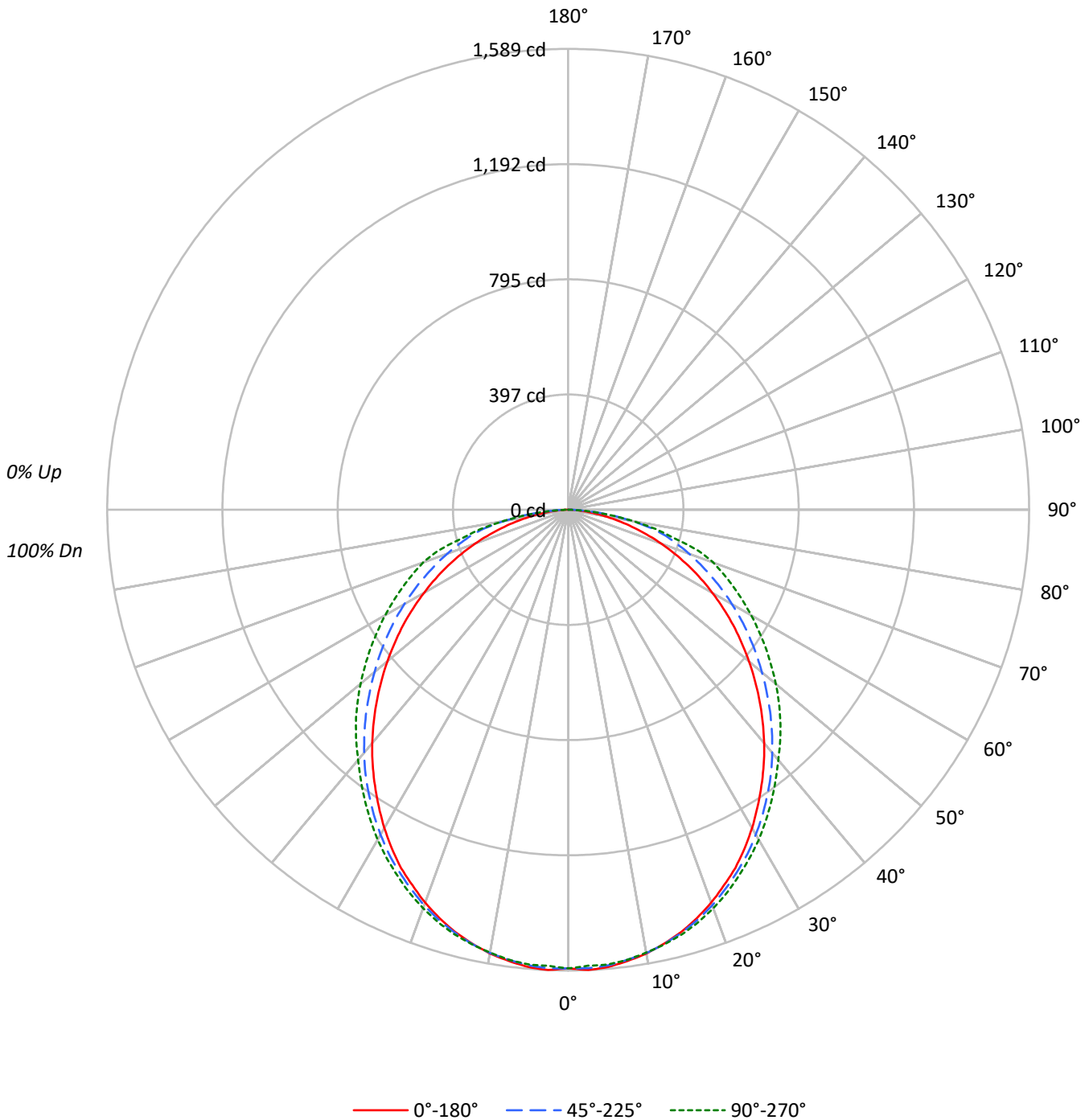
Input Watts (W): 34.898064  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2128	2128	2128
5°	2138	2130	2126
10°	2123	2121	2119
15°	2099	2103	2112
20°	2064	2079	2093
25°	2024	2045	2067
30°	1969	2010	2041
35°	1907	1967	2008
40°	1846	1922	1978
45°	1776	1872	1969
50°	1704	1825	1956
55°	1630	1787	1950
60°	1545	1756	1960
65°	1453	1735	1999
70°	1338	1744	2092
75°	1186	1806	1949
80°	991	1712	1757
85°	741	1369	1257



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.5	3.4
10°-20°	425.2	9.7
20°-30°	633.6	14.5
30°-40°	745.9	17.1
40°-50°	758.0	17.4
50°-60°	681.5	15.6
60°-70°	538.4	12.3
70°-80°	341.6	7.8
80°-90°	94.3	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°	1208.3	27.7
0°-40°	1954.3	44.7
0°-60°	3393.8	77.7
0°-90°	4368.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4368.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1581	1581	1581	1581	1581	
5°	1583	1570	1577	1574	1574	150
15°	1507	1500	1510	1514	1516	425
25°	1363	1362	1378	1386	1392	627
35°	1161	1168	1198	1211	1222	727
45°	933	946	984	1013	1035	720
55°	695	712	762	811	831	620
65°	456	480	545	605	628	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°	1581.3	1581.3	1581.3	1581.3	1581.3
2.5°	1588.6	1576.9	1582.7	1579.8	1574.0
5°	1582.7	1569.7	1576.9	1574.0	1574.0
7.5°	1569.7	1559.5	1565.3	1563.9	1565.3
10°	1553.7	1543.5	1552.2	1552.2	1550.8
12.5°	1531.9	1523.2	1533.3	1533.3	1534.8
15°	1507.2	1499.9	1510.1	1514.4	1515.9
17.5°	1476.7	1469.4	1482.5	1486.8	1491.2
20°	1441.8	1438.9	1451.9	1456.3	1462.1
22.5°	1402.5	1402.5	1415.6	1421.4	1430.1
25°	1363.3	1361.8	1377.8	1386.5	1392.4
27.5°	1316.8	1318.2	1338.6	1347.3	1354.6
30°	1267.4	1270.3	1293.5	1303.7	1313.9
32.5°	1215.0	1220.9	1247.0	1258.6	1268.8
35°	1161.3	1168.5	1197.6	1210.7	1222.3
37.5°	1107.5	1117.7	1148.2	1161.3	1174.3
40°	1050.8	1059.5	1094.4	1110.4	1126.4
42.5°	992.7	1004.3	1039.2	1062.4	1081.3
45°	933.1	946.2	984.0	1013.0	1034.8
47.5°	873.5	890.9	927.3	966.5	985.4
50°	813.9	831.3	872.0	915.6	934.5
52.5°	752.9	770.3	816.8	861.9	882.2
55°	694.7	712.2	761.6	811.0	831.3
57.5°	633.7	652.6	707.8	758.7	779.0
60°	574.1	593.0	652.6	706.4	728.2
62.5°	516.0	536.3	598.8	655.5	677.3
65°	456.4	479.6	545.0	604.6	627.9
67.5°	398.2	424.4	492.7	555.2	579.9
70°	340.1	370.6	443.3	507.2	531.9
72.5°	283.4	316.8	393.9	457.8	470.9
75°	228.2	267.4	347.4	377.9	375.0
77.5°	175.9	219.5	295.0	300.9	309.6
80°	127.9	175.9	220.9	232.5	226.7
82.5°	84.3	132.3	158.4	152.6	151.2
85°	48.0	82.8	88.7	81.4	81.4
87.5°	20.3	33.4	29.1	21.8	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)