

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: P261239

Luminaire Tested: **24CZ-LD5-45SE-S-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261239  
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-2700K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4242.0 lumens  
Efficiency: N/A  
Efficacy: 121.3 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

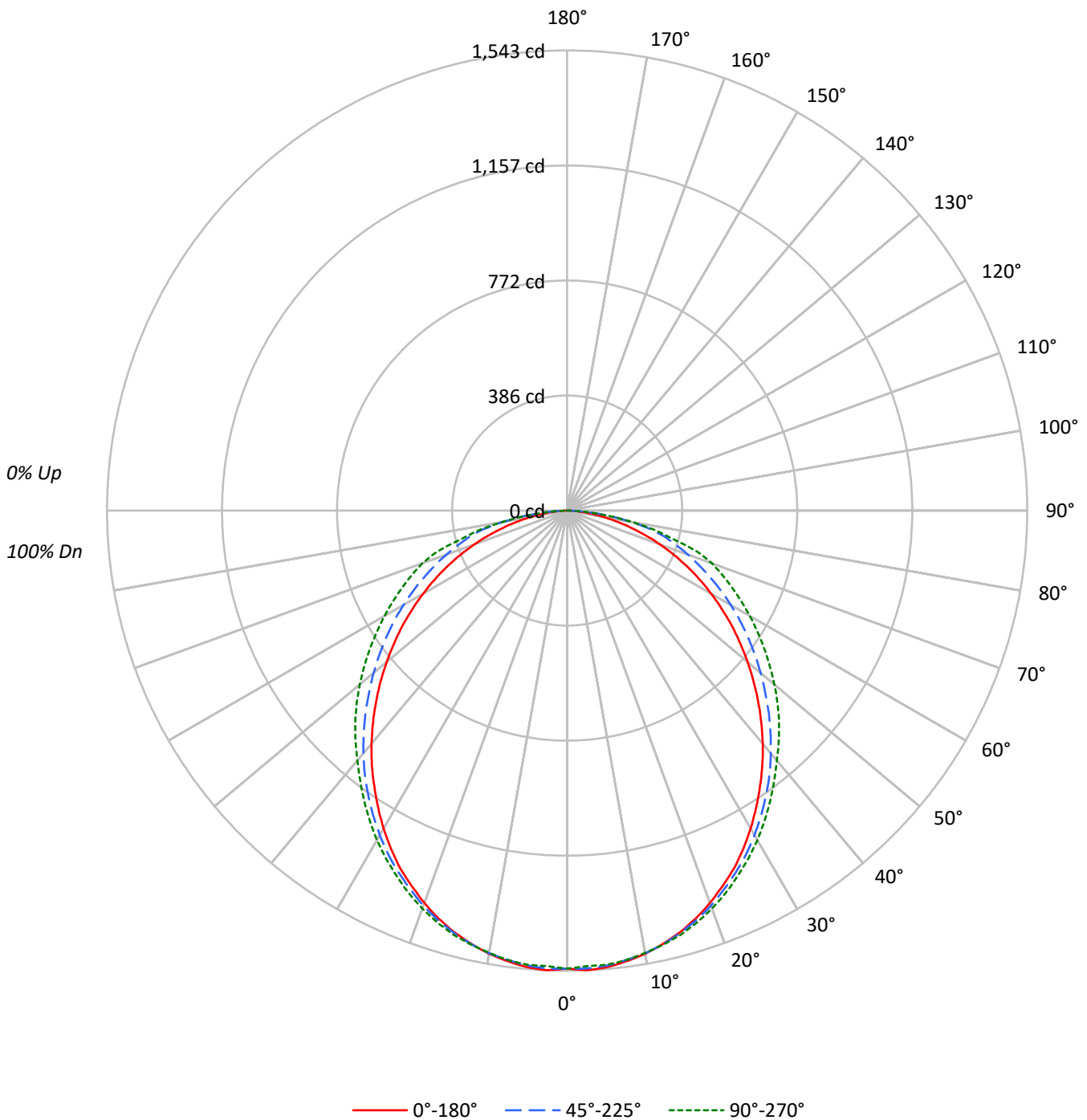
Input Watts (W): 34.968  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2066	2066	2066
5°	2076	2068	2065
10°	2062	2060	2058
15°	2039	2043	2051
20°	2005	2019	2033
25°	1966	1987	2007
30°	1912	1952	1982
35°	1852	1910	1950
40°	1792	1867	1921
45°	1724	1818	1912
50°	1654	1773	1900
55°	1583	1735	1894
60°	1500	1706	1903
65°	1411	1685	1941
70°	1299	1694	2032
75°	1152	1753	1893
80°	962	1662	1706
85°	719	1329	1220



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	145.2	3.4
10°-20°	412.9	9.7
20°-30°	615.4	14.5
30°-40°	724.4	17.1
40°-50°	736.1	17.4
50°-60°	661.8	15.6
60°-70°	522.9	12.3
70°-80°	331.7	7.8
80°-90°	91.6	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°	1173.5	27.7
0°-40°	1897.9	44.7
0°-60°	3295.9	77.7
0°-90°	4242.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4242.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1536	1536	1536	1536	1536	
5°	1537	1524	1531	1529	1529	146
15°	1464	1457	1466	1471	1472	412
25°	1324	1322	1338	1346	1352	609
35°	1128	1135	1163	1176	1187	706
45°	906	919	956	984	1005	699
55°	675	692	740	788	807	603
65°	443	466	529	587	610	439
75°	222	260	337	367	364	236
85°	47	80	86	79	79	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1535.7	1535.7	1535.7	1535.7	1535.7
2.5°	1542.7	1531.4	1537.1	1534.3	1528.6
5°	1537.1	1524.4	1531.4	1528.6	1528.6
7.5°	1524.4	1514.5	1520.2	1518.7	1520.2
10°	1508.9	1499.0	1507.5	1507.5	1506.0
12.5°	1487.7	1479.2	1489.1	1489.1	1490.5
15°	1463.7	1456.6	1466.5	1470.8	1472.2
17.5°	1434.1	1427.0	1439.7	1443.9	1448.2
20°	1400.2	1397.4	1410.1	1414.3	1419.9
22.5°	1362.1	1362.1	1374.8	1380.4	1388.9
25°	1324.0	1322.5	1338.1	1346.5	1352.2
27.5°	1278.8	1280.2	1300.0	1308.4	1315.5
30°	1230.8	1233.6	1256.2	1266.1	1276.0
32.5°	1180.0	1185.6	1211.0	1222.3	1232.2
35°	1127.8	1134.8	1163.1	1175.8	1187.0
37.5°	1075.5	1085.4	1115.1	1127.8	1140.5
40°	1020.5	1029.0	1062.8	1078.4	1093.9
42.5°	964.0	975.3	1009.2	1031.8	1050.1
45°	906.2	918.9	955.6	983.8	1005.0
47.5°	848.3	865.2	900.5	938.6	957.0
50°	790.4	807.4	846.9	889.2	907.6
52.5°	731.1	748.1	793.2	837.0	856.8
55°	674.7	691.6	739.6	787.6	807.4
57.5°	615.4	633.8	687.4	736.8	756.5
60°	557.5	575.9	633.8	686.0	707.1
62.5°	501.1	520.8	581.5	636.6	657.7
65°	443.2	465.8	529.3	587.2	609.8
67.5°	386.7	412.1	478.5	539.2	563.2
70°	330.3	359.9	430.5	492.6	516.6
72.5°	275.2	307.7	382.5	444.6	457.3
75°	221.6	259.7	337.3	367.0	364.2
77.5°	170.8	213.1	286.5	292.2	300.6
80°	124.2	170.8	214.5	225.8	220.2
82.5°	81.9	128.4	153.9	148.2	146.8
85°	46.6	80.5	86.1	79.0	79.0
87.5°	19.8	32.5	28.2	21.2	19.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)