

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: P261103

Luminaire Tested: **24CZ-LD5-35SE-S-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261103  
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-LD5-35SE-S-UNV-L93050-W2A1-U-3500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3083.9 lumens  
Efficiency: N/A  
Efficacy: 116.2 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

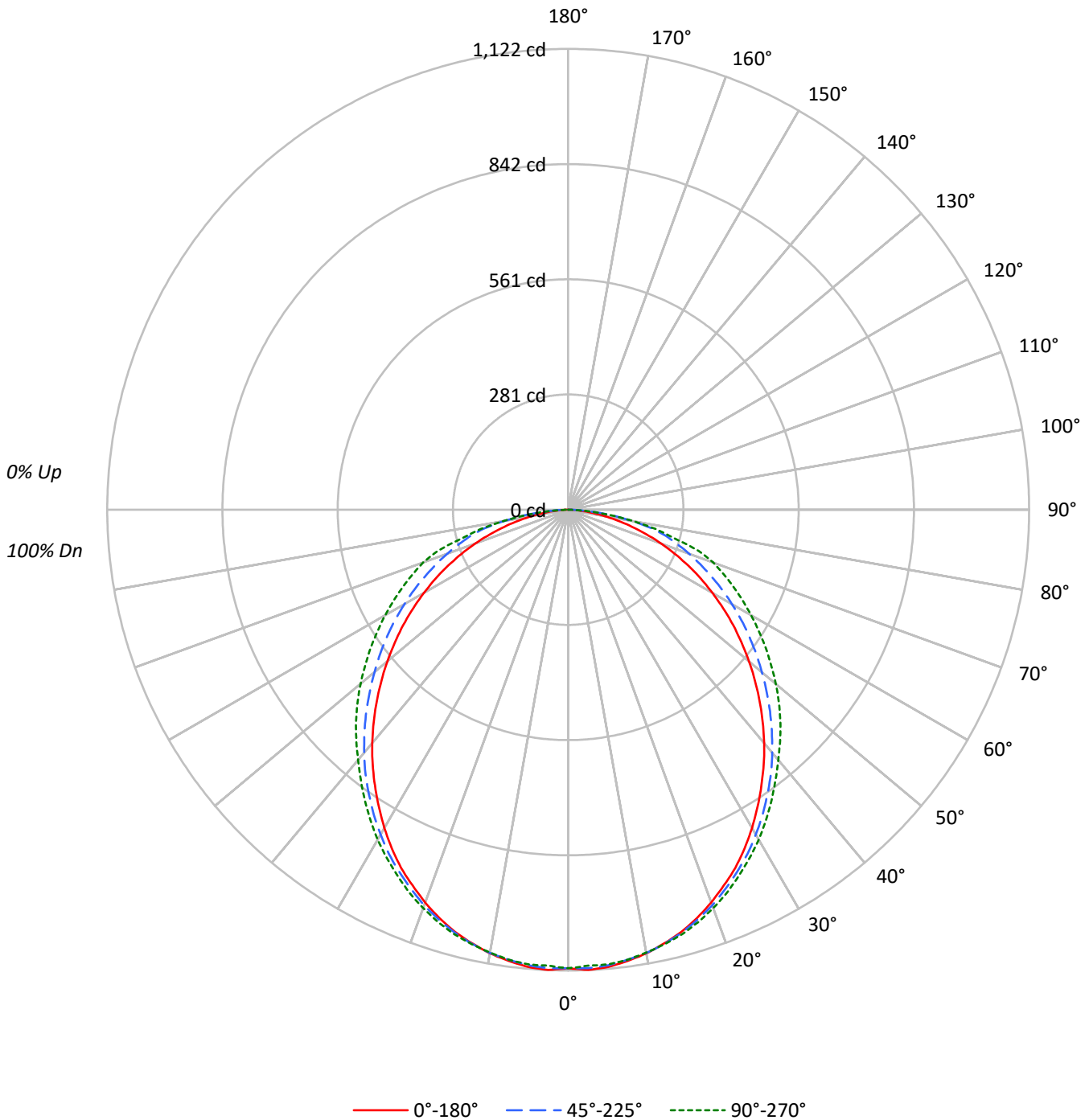
Input Watts (W): 26.53476  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1502	1502	1502
5°	1509	1504	1501
10°	1499	1497	1496
15°	1482	1485	1491
20°	1457	1468	1478
25°	1429	1444	1459
30°	1390	1419	1441
35°	1347	1389	1418
40°	1303	1357	1397
45°	1254	1322	1390
50°	1203	1289	1381
55°	1151	1261	1377
60°	1091	1240	1383
65°	1026	1225	1411
70°	945	1231	1478
75°	837	1275	1376
80°	700	1209	1241
85°	523	966	888



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.6	3.4
10°-20°	300.2	9.7
20°-30°	447.4	14.5
30°-40°	526.6	17.1
40°-50°	535.2	17.4
50°-60°	481.2	15.6
60°-70°	380.1	12.3
70°-80°	241.2	7.8
80°-90°	66.6	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°	853.1	27.7
0°-40°	1379.8	44.7
0°-60°	2396.1	77.7
0°-90°	3083.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3083.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1116	1116	1116	1116	1116	
5°	1118	1108	1113	1111	1111	106
15°	1064	1059	1066	1069	1070	300
25°	962	962	973	979	983	443
35°	820	825	846	855	863	513
45°	659	668	695	715	731	508
55°	490	503	538	573	587	438
65°	322	339	385	427	443	319
75°	161	189	245	267	265	171
85°	34	58	63	58	58	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1116.4	1116.4	1116.4	1116.4	1116.4
2.5°	1121.6	1113.4	1117.5	1115.4	1111.3
5°	1117.5	1108.2	1113.4	1111.3	1111.3
7.5°	1108.2	1101.0	1105.1	1104.1	1105.1
10°	1096.9	1089.8	1095.9	1095.9	1094.9
12.5°	1081.5	1075.4	1082.6	1082.6	1083.6
15°	1064.1	1059.0	1066.2	1069.2	1070.3
17.5°	1042.6	1037.4	1046.7	1049.7	1052.8
20°	1017.9	1015.9	1025.1	1028.2	1032.3
22.5°	990.2	990.2	999.5	1003.6	1009.7
25°	962.5	961.5	972.8	978.9	983.0
27.5°	929.7	930.7	945.1	951.2	956.4
30°	894.8	896.8	913.3	920.4	927.6
32.5°	857.8	862.0	880.4	888.6	895.8
35°	819.9	825.0	845.5	854.8	863.0
37.5°	781.9	789.1	810.6	819.9	829.1
40°	741.9	748.1	772.7	784.0	795.3
42.5°	700.9	709.1	733.7	750.1	763.4
45°	658.8	668.0	694.7	715.2	730.6
47.5°	616.7	629.0	654.7	682.4	695.7
50°	574.6	586.9	615.7	646.5	659.8
52.5°	531.5	543.9	576.7	608.5	622.9
55°	490.5	502.8	537.7	572.6	586.9
57.5°	447.4	460.7	499.7	535.6	550.0
60°	405.3	418.7	460.7	498.7	514.1
62.5°	364.3	378.6	422.8	462.8	478.2
65°	322.2	338.6	384.8	426.9	443.3
67.5°	281.2	299.6	347.9	392.0	409.4
70°	240.1	261.7	313.0	358.1	375.6
72.5°	200.1	223.7	278.1	323.2	332.5
75°	161.1	188.8	245.2	266.8	264.7
77.5°	124.2	154.9	208.3	212.4	218.6
80°	90.3	124.2	156.0	164.2	160.1
82.5°	59.5	93.4	111.8	107.7	106.7
85°	33.9	58.5	62.6	57.5	57.5
87.5°	14.4	23.6	20.5	15.4	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)