

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: P260692

Luminaire Tested: **24CZ-LD5-45SE-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260692  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-45SE-UNV-L93050-W2A1-U-3000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3525.9 lumens  
Efficiency: N/A  
Efficacy: 98.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

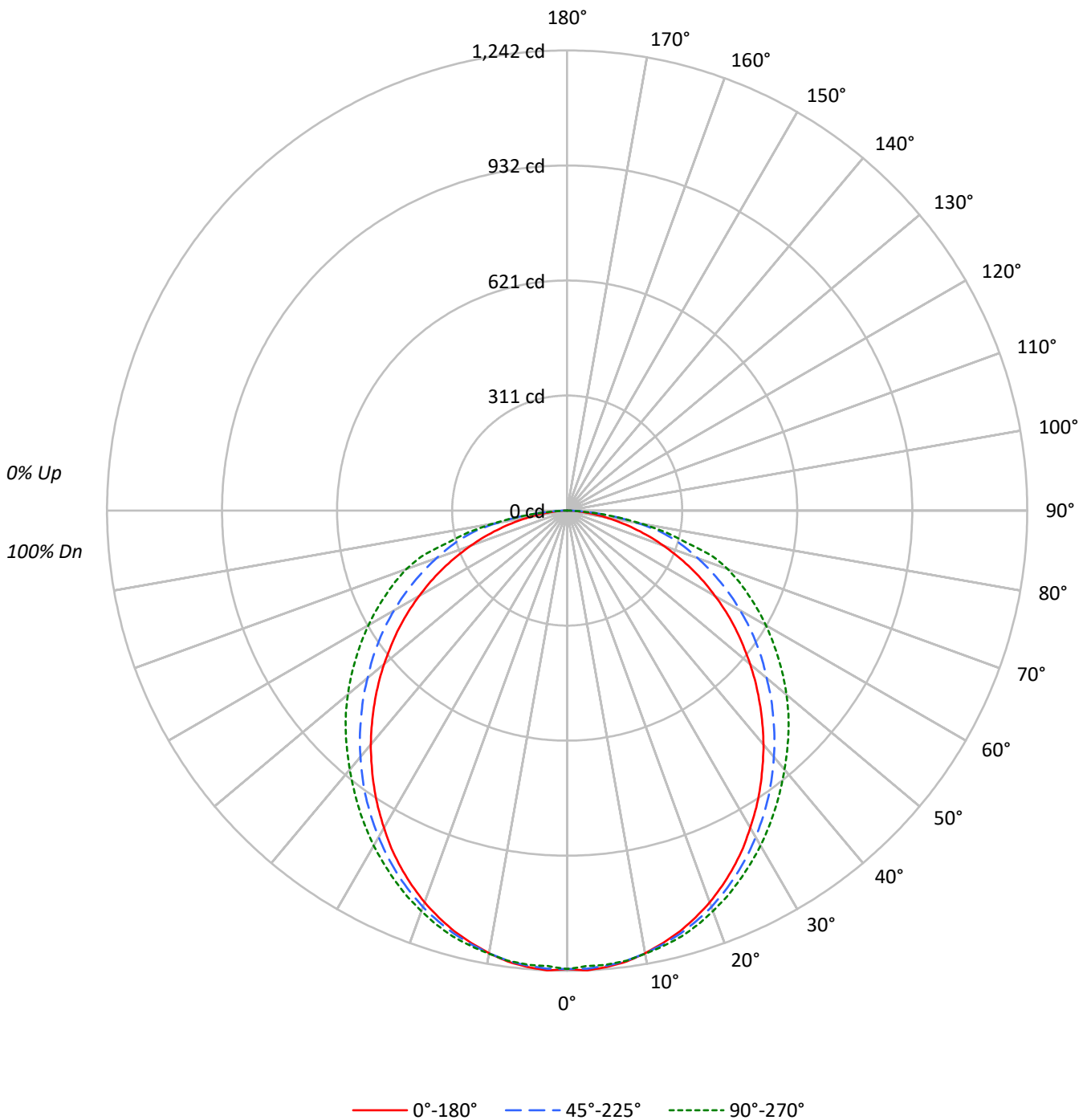
Input Watts (W): 35.772264  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1665	1665	1665
5°	1670	1665	1662
10°	1658	1658	1659
15°	1638	1646	1658
20°	1611	1630	1647
25°	1577	1608	1635
30°	1536	1581	1622
35°	1493	1555	1610
40°	1448	1525	1603
45°	1399	1495	1608
50°	1349	1471	1617
55°	1300	1461	1634
60°	1241	1452	1667
65°	1176	1453	1722
70°	1088	1477	1814
75°	973	1544	1726
80°	814	1478	1581
85°	614	1136	1081



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.9	3.3
10°-20°	332.8	9.4
20°-30°	497.5	14.1
30°-40°	590.2	16.7
40°-50°	607.5	17.2
50°-60°	557.3	15.8
60°-70°	450.6	12.8
70°-80°	292.4	8.3
80°-90°	80.6	2.3
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°	947.3	26.9
0°-40°	1537.5	43.6
0°-60°	2702.2	76.6
0°-90°	3525.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3525.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1236	1228	1233	1231	1230	117
15°	1176	1171	1182	1187	1190	331
25°	1062	1064	1083	1092	1101	489
35°	909	916	946	967	980	568
45°	735	747	786	823	845	567
55°	554	571	623	674	697	495
65°	369	391	456	517	541	365
75°	187	222	297	332	332	199
85°	40	68	74	71	70	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1237.4	1237.4	1237.4	1237.4	1237.4
2.5°	1242.2	1232.6	1237.4	1236.2	1230.2
5°	1236.2	1227.7	1232.6	1231.4	1230.2
7.5°	1227.7	1219.3	1225.3	1224.1	1225.3
10°	1213.3	1206.0	1213.3	1214.5	1214.5
12.5°	1195.2	1189.1	1198.8	1201.2	1203.6
15°	1175.8	1171.0	1181.9	1186.7	1190.3
17.5°	1151.7	1148.1	1161.4	1167.4	1172.2
20°	1125.1	1123.9	1138.4	1144.4	1150.5
22.5°	1095.0	1095.0	1111.9	1119.1	1127.5
25°	1062.4	1063.6	1082.9	1092.5	1101.0
27.5°	1027.3	1028.6	1051.5	1063.6	1073.2
30°	988.7	993.5	1017.7	1033.4	1044.3
32.5°	950.1	956.1	982.7	1000.8	1012.9
35°	909.0	916.3	946.5	967.0	980.3
37.5°	866.8	875.2	907.8	930.8	946.5
40°	824.5	834.2	868.0	894.6	912.7
42.5°	779.9	790.7	828.2	859.5	878.9
45°	735.2	747.3	785.9	823.3	845.1
47.5°	690.5	705.0	746.1	787.1	810.0
50°	644.7	659.1	702.6	749.7	772.6
52.5°	598.8	615.7	664.0	712.3	735.2
55°	554.1	571.0	622.9	673.6	696.6
57.5°	508.2	525.1	581.9	635.0	657.9
60°	461.2	480.5	539.6	594.0	619.3
62.5°	415.3	435.8	498.6	556.5	580.7
65°	369.4	391.1	456.3	516.7	540.8
67.5°	322.3	347.7	415.3	476.9	502.2
70°	276.5	304.2	375.4	437.0	461.2
72.5°	231.8	262.0	335.6	398.4	412.9
75°	187.1	222.1	297.0	332.0	332.0
77.5°	144.9	183.5	253.5	266.8	274.0
80°	105.0	147.3	190.7	206.4	204.0
82.5°	70.0	112.3	136.4	136.4	132.8
85°	39.8	67.6	73.6	71.2	70.0
87.5°	16.9	25.4	22.9	18.1	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)