

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: P263214

Luminaire Tested: **24CZ-LD5-45SE-SQP-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P263214  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25695)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-45SE-SQP-UNV-L93050-W2A1-U-4000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SQP LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2754.1 lumens  
Efficiency: N/A  
Efficacy: 76.8 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.42  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

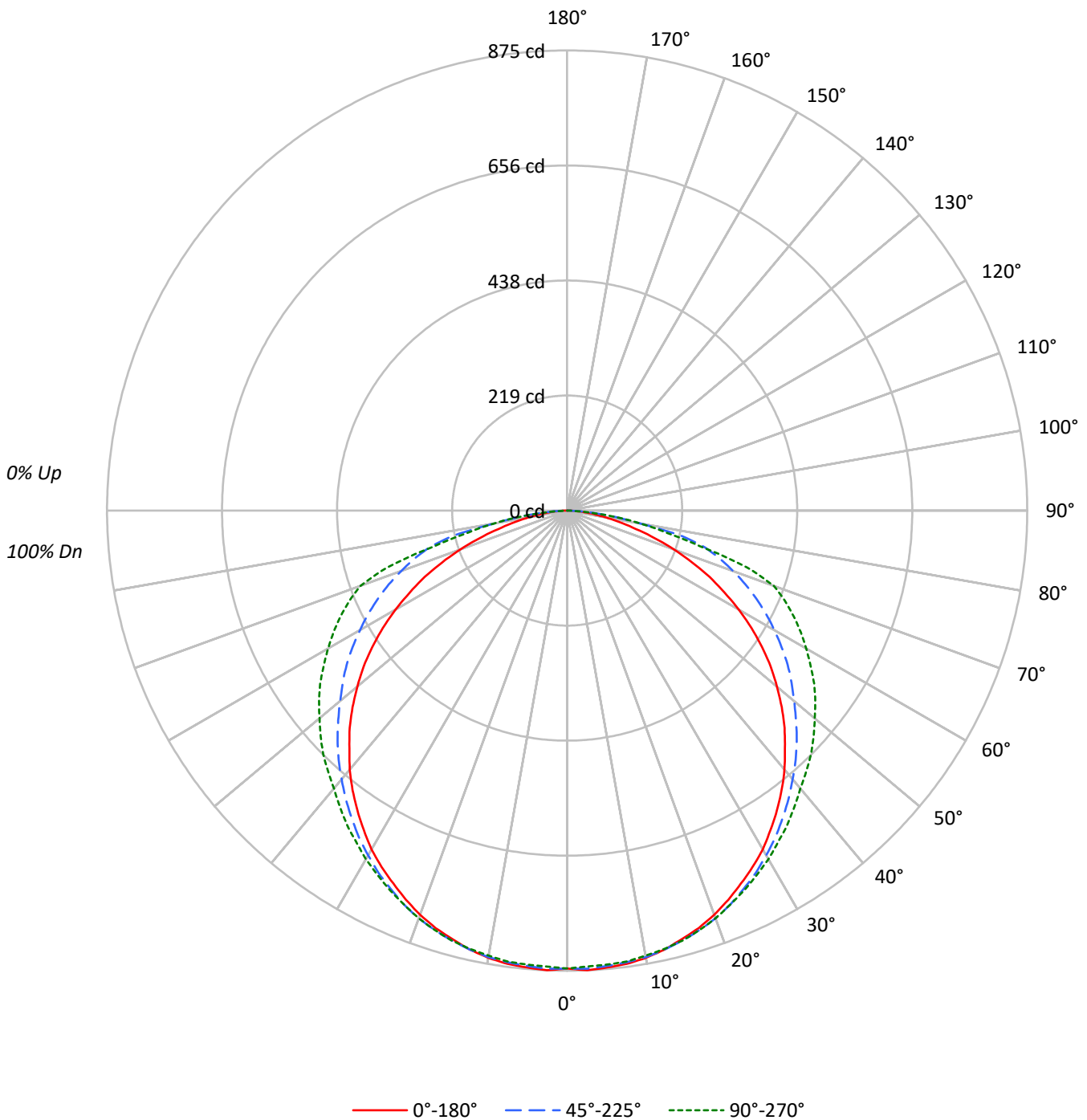
Input Watts (W): 35.877168  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	101	97	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	60	70	64	59	67	63	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	51	45	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	29	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	51	38	30	24	50	37	30	24	36	29	24	35	29	24	35	28	24	22

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

	0°	45°	90°
0°	1171	1171	1171
5°	1178	1174	1170
10°	1180	1178	1174
15°	1175	1179	1179
20°	1171	1181	1181
25°	1162	1178	1183
30°	1156	1176	1189
35°	1143	1173	1199
40°	1129	1172	1212
45°	1113	1175	1248
50°	1090	1179	1286
55°	1061	1201	1345
60°	1014	1225	1412
65°	951	1264	1513
70°	851	1321	1646
75°	702	1412	1361
80°	573	1091	1103
85°	462	724	681



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.7	3.0
10°-20°	238.6	8.7
20°-30°	364.7	13.2
30°-40°	446.0	16.2
40°-50°	477.2	17.3
50°-60°	457.0	16.6
60°-70°	386.6	14.0
70°-80°	245.0	8.9
80°-90°	56.4	2.0
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°	686.0	24.9
0°-40°	1132.0	41.1
0°-60°	2066.2	75.0
0°-90°	2754.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2754.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	871	871	871	871	871	
5°	872	868	869	868	866	83
15°	844	842	846	846	846	238
25°	782	782	794	797	797	361
35°	696	700	714	724	730	435
45°	585	595	617	643	656	450
55°	452	467	512	555	573	404
65°	299	327	397	451	475	294
75°	135	191	272	270	262	147
85°	30	46	47	43	44	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	870.6	870.6	870.6	870.6	870.6
2.5°	874.9	870.6	872.1	870.6	867.8
5°	872.1	867.8	869.2	867.8	866.4
7.5°	869.2	865.0	866.4	865.0	865.0
10°	863.5	859.3	862.1	860.7	859.3
12.5°	855.0	852.2	855.0	853.6	853.6
15°	843.6	842.2	846.5	846.5	846.5
17.5°	832.2	830.8	836.5	836.5	836.5
20°	818.0	816.6	825.1	825.1	825.1
22.5°	800.9	799.5	810.9	810.9	810.9
25°	782.4	782.4	793.8	796.7	796.7
27.5°	763.9	763.9	776.8	781.0	781.0
30°	744.0	744.0	756.8	762.5	765.4
32.5°	719.8	722.7	736.9	744.0	746.9
35°	695.7	699.9	714.2	724.1	729.8
37.5°	670.1	674.3	691.4	702.8	709.9
40°	643.0	648.7	667.2	681.4	690.0
42.5°	613.1	621.7	643.0	661.5	672.9
45°	584.7	594.7	617.4	643.0	655.8
47.5°	553.4	564.8	590.4	623.1	635.9
50°	520.7	532.1	563.4	600.3	614.6
52.5°	488.0	500.8	537.8	577.6	594.7
55°	452.4	466.6	512.1	554.8	573.3
57.5°	415.4	432.5	483.7	529.2	549.1
60°	377.0	398.3	455.2	503.6	524.9
62.5°	337.2	362.8	426.8	478.0	500.8
65°	298.8	327.2	396.9	451.0	475.2
67.5°	257.5	293.1	367.0	425.4	448.1
70°	216.2	257.5	335.7	395.5	418.3
72.5°	175.0	224.8	304.4	358.5	358.5
75°	135.1	190.6	271.7	270.3	261.8
77.5°	102.4	159.3	223.4	190.6	192.1
80°	74.0	128.0	140.8	140.8	142.3
82.5°	49.8	98.2	91.0	89.6	92.5
85°	29.9	45.5	46.9	42.7	44.1
87.5°	14.2	15.6	12.8	8.5	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)