

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: P263215

Luminaire Tested: **24CZ-LD5-45SE-SQP-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P263215  
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-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH SQP LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2802.2 lumens  
Efficiency: N/A  
Efficacy: 76.9 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

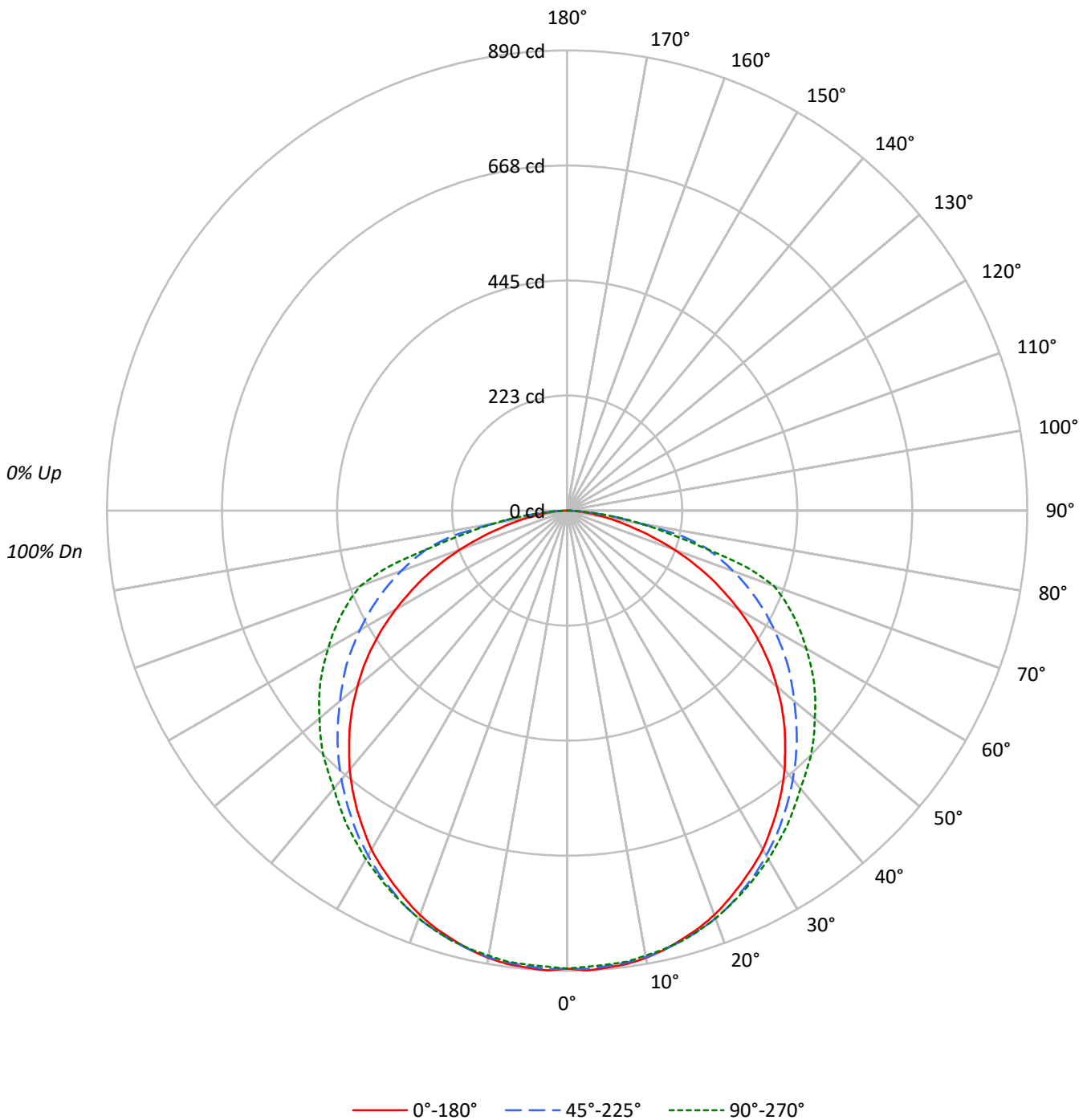
Input Watts (W): 36.436656  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1192	1192	1192
5°	1198	1194	1191
10°	1200	1198	1194
15°	1196	1200	1200
20°	1192	1202	1202
25°	1182	1199	1203
30°	1176	1196	1210
35°	1163	1193	1220
40°	1149	1192	1233
45°	1132	1195	1270
50°	1109	1200	1309
55°	1080	1222	1368
60°	1032	1246	1437
65°	968	1286	1539
70°	865	1344	1674
75°	715	1437	1384
80°	583	1110	1121
85°	469	738	693



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.1	3.0
10°-20°	242.8	8.7
20°-30°	371.0	13.2
30°-40°	453.8	16.2
40°-50°	485.5	17.3
50°-60°	465.0	16.6
60°-70°	393.3	14.0
70°-80°	249.3	8.9
80°-90°	57.4	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°	697.9	24.9
0°-40°	1151.7	41.1
0°-60°	2102.2	75.0
0°-90°	2802.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2802.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	886	886	886	886	886	
5°	887	883	884	883	882	84
15°	858	857	861	861	861	242
25°	796	796	808	811	811	367
35°	708	712	727	737	742	443
45°	595	605	628	654	667	458
55°	460	475	521	564	583	411
65°	304	333	404	459	483	299
75°	138	194	276	275	266	149
85°	30	46	48	43	45	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	885.8	885.8	885.8	885.8	885.8
2.5°	890.2	885.8	887.3	885.8	882.9
5°	887.3	882.9	884.4	882.9	881.5
7.5°	884.4	880.0	881.5	880.0	880.0
10°	878.6	874.2	877.1	875.7	874.2
12.5°	869.9	867.0	869.9	868.5	868.5
15°	858.3	856.9	861.2	861.2	861.2
17.5°	846.7	845.3	851.1	851.1	851.1
20°	832.3	830.8	839.5	839.5	839.5
22.5°	814.9	813.4	825.0	825.0	825.0
25°	796.1	796.1	807.7	810.6	810.6
27.5°	777.3	777.3	790.3	794.6	794.6
30°	757.0	757.0	770.0	775.8	778.7
32.5°	732.4	735.3	749.8	757.0	759.9
35°	707.8	712.1	726.6	736.7	742.5
37.5°	681.7	686.1	703.4	715.0	722.3
40°	654.2	660.0	678.8	693.3	702.0
42.5°	623.8	632.5	654.2	673.0	684.6
45°	594.9	605.0	628.2	654.2	667.3
47.5°	563.0	574.6	600.7	634.0	647.0
50°	529.8	541.3	573.2	610.8	625.3
52.5°	496.5	509.5	547.1	587.7	605.0
55°	460.3	474.8	521.1	564.5	583.3
57.5°	422.6	440.0	492.1	538.4	558.7
60°	383.6	405.3	463.2	512.4	534.1
62.5°	343.0	369.1	434.2	486.3	509.5
65°	304.0	332.9	403.8	458.8	483.4
67.5°	262.0	298.2	373.4	432.8	455.9
70°	220.0	262.0	341.6	402.4	425.5
72.5°	178.0	228.7	309.7	364.7	364.7
75°	137.5	194.0	276.5	275.0	266.3
77.5°	104.2	162.1	227.2	194.0	195.4
80°	75.3	130.3	143.3	143.3	144.7
82.5°	50.7	99.9	92.6	91.2	94.1
85°	30.4	46.3	47.8	43.4	44.9
87.5°	14.5	15.9	13.0	8.7	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)