

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: P263141

Luminaire Tested: **24CZ-LD5-45SE-SQP-UNV-L83050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P263141  
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-L83050-W2A1-U-5000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH SQP LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3180.0 lumens  
Efficiency: N/A  
Efficacy: 86.7 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

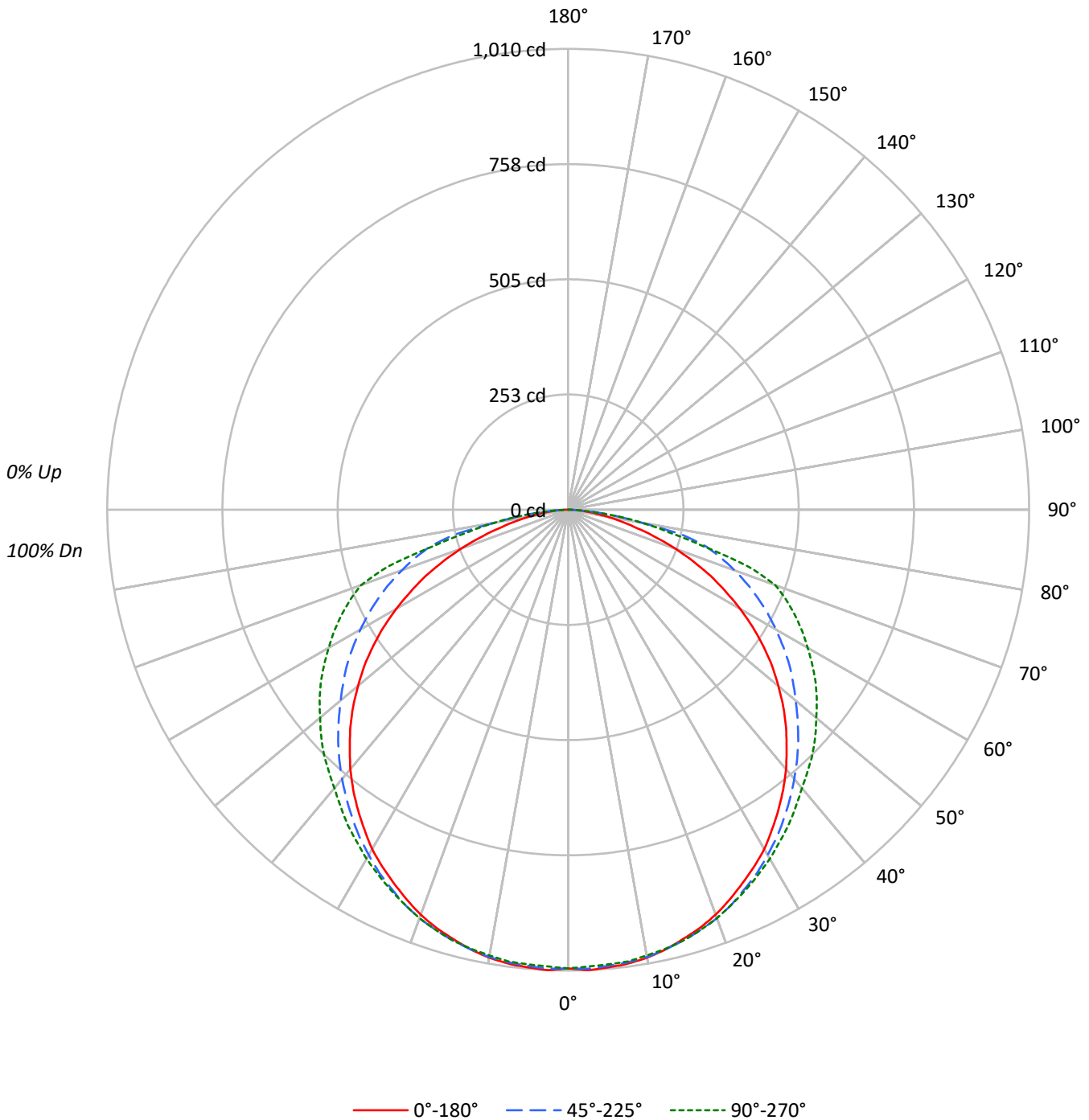
Input Watts (W): 36.681432  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1353	1353	1353
5°	1360	1355	1351
10°	1362	1360	1355
15°	1357	1361	1361
20°	1352	1364	1364
25°	1341	1361	1366
30°	1335	1358	1373
35°	1319	1354	1384
40°	1304	1353	1399
45°	1285	1357	1441
50°	1258	1362	1485
55°	1225	1387	1553
60°	1171	1414	1631
65°	1098	1459	1747
70°	982	1525	1900
75°	811	1631	1571
80°	662	1260	1273
85°	533	837	786



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.5	3.0
10°-20°	275.5	8.7
20°-30°	421.1	13.2
30°-40°	515.0	16.2
40°-50°	551.0	17.3
50°-60°	527.6	16.6
60°-70°	446.3	14.0
70°-80°	282.9	8.9
80°-90°	65.1	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°	792.0	24.9
0°-40°	1307.0	41.1
0°-60°	2385.6	75.0
0°-90°	3180.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3180.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1005	1005	1005	1005	1005	
5°	1007	1002	1004	1002	1000	96
15°	974	972	977	977	977	275
25°	903	903	917	920	920	417
35°	803	808	825	836	843	503
45°	675	687	713	742	757	520
55°	522	539	591	641	662	466
65°	345	378	458	521	549	340
75°	156	220	314	312	302	170
85°	34	53	54	49	51	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1005.3	1005.3	1005.3	1005.3	1005.3
2.5°	1010.2	1005.3	1006.9	1005.3	1002.0
5°	1006.9	1002.0	1003.6	1002.0	1000.3
7.5°	1003.6	998.7	1000.3	998.7	998.7
10°	997.0	992.1	995.4	993.8	992.1
12.5°	987.2	983.9	987.2	985.5	985.5
15°	974.0	972.4	977.3	977.3	977.3
17.5°	960.9	959.3	965.8	965.8	965.8
20°	944.5	942.8	952.7	952.7	952.7
22.5°	924.8	923.1	936.3	936.3	936.3
25°	903.4	903.4	916.6	919.8	919.8
27.5°	882.1	882.1	896.8	901.8	901.8
30°	859.1	859.1	873.9	880.4	883.7
32.5°	831.1	834.4	850.9	859.1	862.4
35°	803.2	808.1	824.6	836.1	842.6
37.5°	773.7	778.6	798.3	811.4	819.6
40°	742.4	749.0	770.4	786.8	796.7
42.5°	708.0	717.8	742.4	763.8	776.9
45°	675.1	686.6	712.9	742.4	757.2
47.5°	639.0	652.1	681.7	719.4	734.2
50°	601.2	614.3	650.5	693.2	709.6
52.5°	563.4	578.2	620.9	666.9	686.6
55°	522.3	538.8	591.3	640.6	662.0
57.5°	479.6	499.3	558.5	611.0	634.0
60°	435.3	459.9	525.6	581.5	606.1
62.5°	389.3	418.9	492.8	551.9	578.2
65°	344.9	377.8	458.3	520.7	548.6
67.5°	297.3	338.4	423.8	491.1	517.4
70°	249.7	297.3	387.6	456.6	482.9
72.5°	202.0	259.5	351.5	413.9	413.9
75°	156.0	220.1	313.7	312.1	302.2
77.5°	118.3	184.0	257.9	220.1	221.7
80°	85.4	147.8	162.6	162.6	164.3
82.5°	57.5	113.3	105.1	103.5	106.8
85°	34.5	52.6	54.2	49.3	50.9
87.5°	16.4	18.1	14.8	9.9	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)