

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: P276706

Luminaire Tested: **24CZ2-40-S-UNV-L92765-W2A1-U-3000K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P276706  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40-S-UNV-L92765-W2A1-U-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3279.2 lumens  
Efficiency: N/A  
Efficacy: 108.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

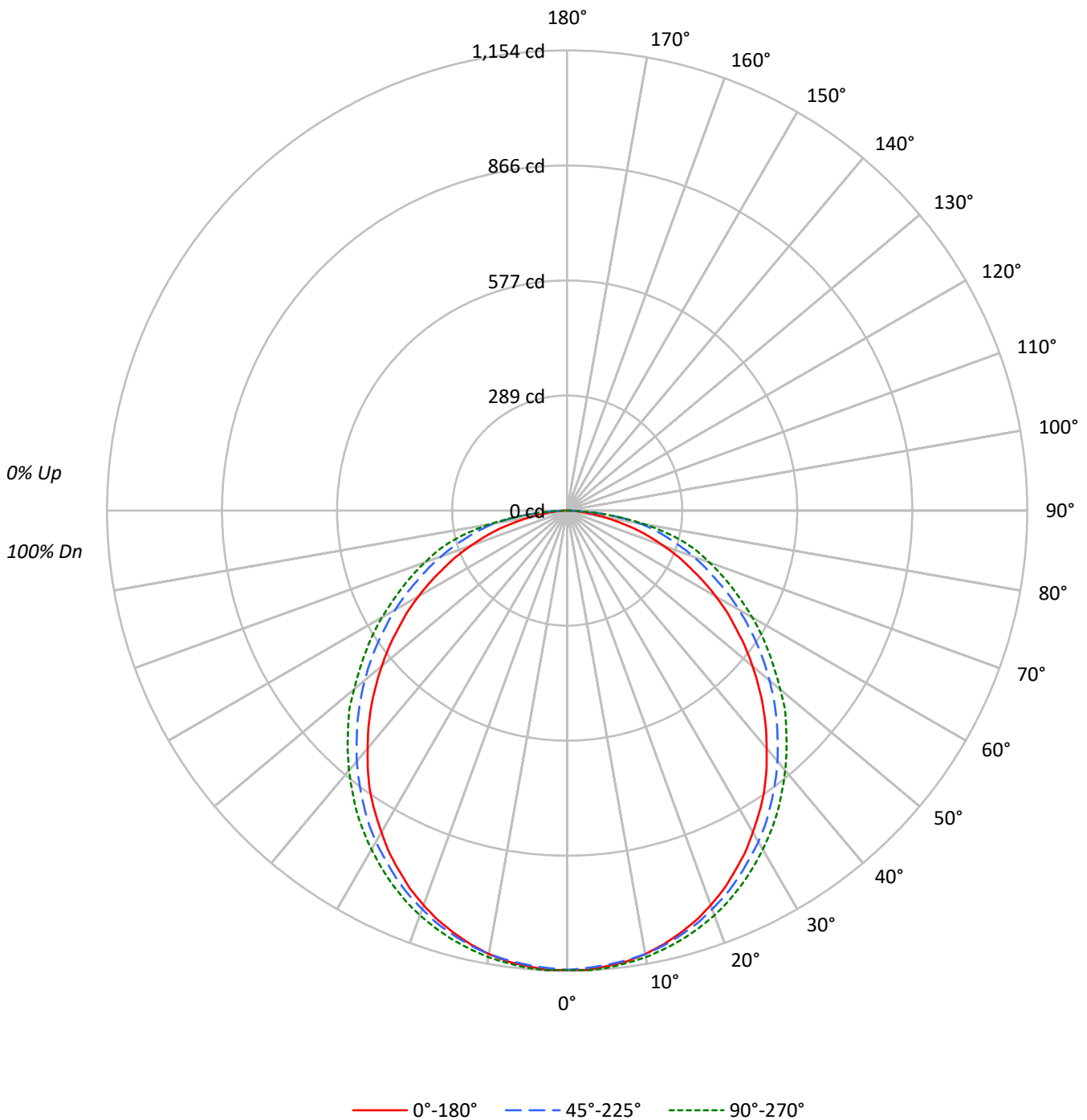
Input Watts (W): 30.132  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	1550	1550	1550
5°	1549	1545	1555
10°	1543	1543	1554
15°	1528	1535	1551
20°	1508	1523	1547
25°	1480	1508	1537
30°	1447	1490	1524
35°	1415	1466	1512
40°	1367	1442	1495
45°	1322	1413	1478
50°	1271	1387	1461
55°	1214	1361	1446
60°	1158	1340	1443
65°	1084	1316	1452
70°	1004	1323	1491
75°	899	1349	1576
80°	726	1429	1541
85°	546	1254	1223



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.1	3.3
10°-20°	311.6	9.5
20°-30°	468.4	14.3
30°-40°	558.0	17.0
40°-50°	571.1	17.4
50°-60°	514.1	15.7
60°-70°	403.8	12.3
70°-80°	262.0	8.0
80°-90°	81.0	2.5
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°	889.1	27.1
0°-40°	1447.1	44.1
0°-60°	2532.3	77.2
0°-90°	3279.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3279.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1152	1152	1152	1152	1152	
5°	1147	1149	1144	1150	1151	109
15°	1097	1100	1102	1111	1114	309
25°	997	1005	1016	1032	1035	459
35°	861	872	893	914	921	537
45°	695	711	743	771	777	536
55°	518	541	580	610	617	464
65°	341	367	414	448	456	339
75°	173	206	259	295	303	183
85°	35	66	81	79	79	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1152.0	1152.0	1152.0	1152.0	1152.0
2.5°	1153.0	1153.0	1147.8	1153.0	1154.1
5°	1146.8	1148.9	1143.7	1149.9	1151.0
7.5°	1140.5	1140.5	1137.4	1143.7	1144.7
10°	1129.1	1130.1	1129.1	1136.4	1137.4
12.5°	1114.5	1116.6	1117.6	1124.9	1126.0
15°	1096.8	1099.9	1102.0	1111.4	1113.5
17.5°	1077.0	1080.1	1085.3	1095.8	1097.8
20°	1053.0	1057.2	1063.5	1077.0	1080.1
22.5°	1027.0	1031.2	1041.6	1054.1	1059.3
25°	996.8	1005.1	1015.6	1032.2	1035.3
27.5°	966.6	973.9	987.4	1005.1	1009.3
30°	931.2	942.6	959.3	977.0	981.2
32.5°	896.8	908.3	928.1	946.8	952.0
35°	861.4	871.8	892.6	914.5	920.8
37.5°	820.8	834.3	857.2	879.1	885.4
40°	778.1	794.7	820.8	843.7	851.0
42.5°	737.4	755.2	781.2	806.2	814.5
45°	694.7	711.4	742.7	770.8	777.0
47.5°	651.0	669.7	703.1	731.2	741.6
50°	607.2	627.0	662.5	691.6	697.9
52.5°	563.5	584.3	621.8	653.1	656.2
55°	517.7	540.6	580.2	610.4	616.6
57.5°	476.0	495.8	538.5	569.8	577.0
60°	430.2	452.1	497.9	527.0	536.4
62.5°	386.4	409.3	457.3	486.4	494.8
65°	340.6	366.6	413.5	447.9	456.2
67.5°	301.0	326.0	376.0	409.3	417.7
70°	255.2	283.3	336.4	370.8	379.1
72.5°	215.6	244.8	297.9	331.2	343.7
75°	172.9	206.2	259.4	294.8	303.1
77.5°	131.2	169.8	223.9	251.0	251.0
80°	93.7	134.4	184.4	196.9	198.9
82.5°	61.5	101.0	136.4	135.4	135.4
85°	35.4	65.6	81.2	79.2	79.2
87.5°	13.5	27.1	29.2	29.2	28.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)