

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: P391446

Luminaire Tested: **24CZ2-50VHE-RDP-UNV-L950-CD1-SDWPD1-U**

Issue Date: 2/28/2020

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: P391446  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-50VHE-RDP-UNV-L950-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3013.0 lumens  
Efficiency: N/A  
Efficacy: 92.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

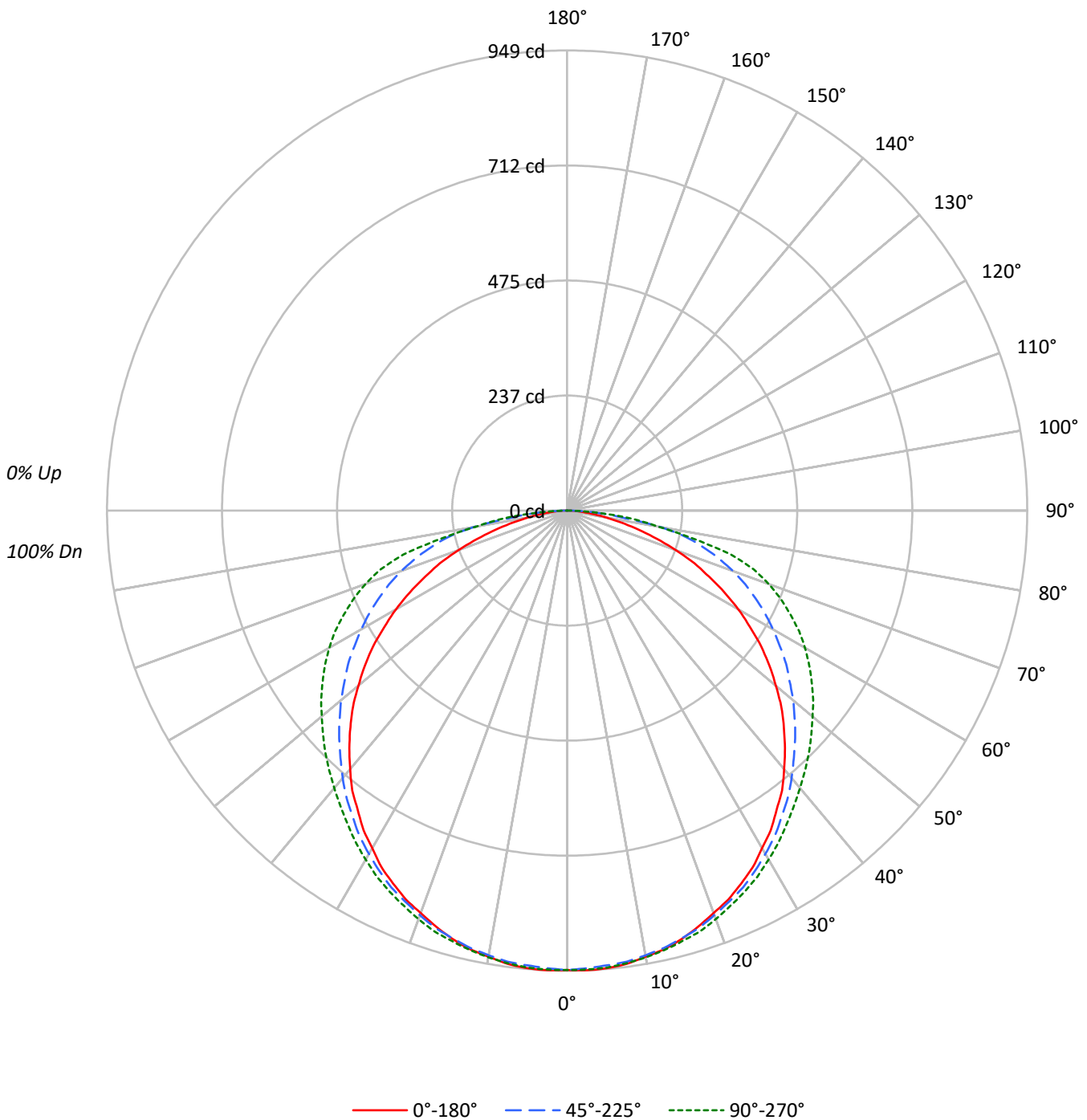
Input Watts (W): 32.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1275	1275	1275
5°	1280	1272	1278
10°	1276	1272	1278
15°	1274	1272	1280
20°	1265	1271	1284
25°	1260	1273	1287
30°	1249	1270	1291
35°	1237	1267	1296
40°	1223	1265	1312
45°	1203	1265	1342
50°	1176	1273	1383
55°	1146	1294	1444
60°	1098	1319	1524
65°	1028	1365	1618
70°	935	1429	1740
75°	792	1507	1818
80°	625	1517	1471
85°	462	1153	1292



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.9	3.0
10°-20°	258.7	8.6
20°-30°	395.6	13.1
30°-40°	483.6	16.0
40°-50°	515.4	17.1
50°-60°	492.8	16.4
60°-70°	417.4	13.9
70°-80°	280.6	9.3
80°-90°	79.1	2.6
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°	744.1	24.7
0°-40°	1227.7	40.7
0°-60°	2235.8	74.2
0°-90°	3013.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3013.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	948	948	948	948	948	
5°	948	946	942	946	946	90
15°	915	915	913	921	919	258
25°	849	852	858	865	867	391
35°	753	759	771	786	789	472
45°	632	643	665	693	705	488
55°	489	507	552	595	616	435
65°	323	356	429	486	508	320
75°	152	208	290	339	350	163
85°	30	61	75	81	84	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	947.5	947.5	947.5	947.5	947.5
2.5°	949.0	949.0	944.5	947.5	947.5
5°	947.5	946.0	941.5	946.0	946.0
7.5°	943.0	941.5	938.5	943.0	941.5
10°	934.1	934.1	931.1	935.5	935.5
12.5°	926.6	925.1	923.6	929.6	928.1
15°	914.6	914.6	913.1	920.6	919.1
17.5°	899.7	901.2	902.7	908.6	910.1
20°	883.2	886.2	887.7	896.7	896.7
22.5°	868.3	869.8	872.8	881.7	881.7
25°	848.9	851.9	857.8	865.3	866.8
27.5°	829.4	830.9	838.4	848.9	850.4
30°	804.0	808.5	817.5	829.4	830.9
32.5°	781.6	786.1	796.6	808.5	811.5
35°	753.2	759.2	771.2	786.1	789.1
37.5°	727.8	732.3	747.2	763.7	768.2
40°	696.4	705.4	720.3	739.8	747.2
42.5°	665.0	674.0	691.9	717.4	726.3
45°	632.2	642.6	665.0	693.4	705.4
47.5°	599.3	611.2	636.6	669.5	683.0
50°	561.9	576.9	608.3	645.6	660.6
52.5°	526.1	544.0	578.4	620.2	639.6
55°	488.7	506.6	551.5	594.8	615.7
57.5°	446.9	470.8	520.1	569.4	591.8
60°	408.0	430.4	490.2	544.0	566.4
62.5°	366.1	396.0	460.3	517.1	539.5
65°	322.8	355.7	428.9	485.7	508.1
67.5°	284.0	319.8	397.5	454.3	476.7
70°	237.6	282.5	363.2	419.9	442.4
72.5°	194.3	243.6	327.3	382.6	403.5
75°	152.4	207.7	289.9	339.2	349.7
77.5°	113.6	171.9	251.1	272.0	264.5
80°	80.7	137.5	195.8	185.3	189.8
82.5°	52.3	104.6	121.1	137.5	142.0
85°	29.9	61.3	74.7	80.7	83.7
87.5°	13.5	22.4	29.9	29.9	28.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)