

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: P391587

Luminaire Tested: **24CZ2-65VHE-RDP-UNV-L940-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: P391587  
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: 24CZ2-65VHE-RDP-UNV-L940-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

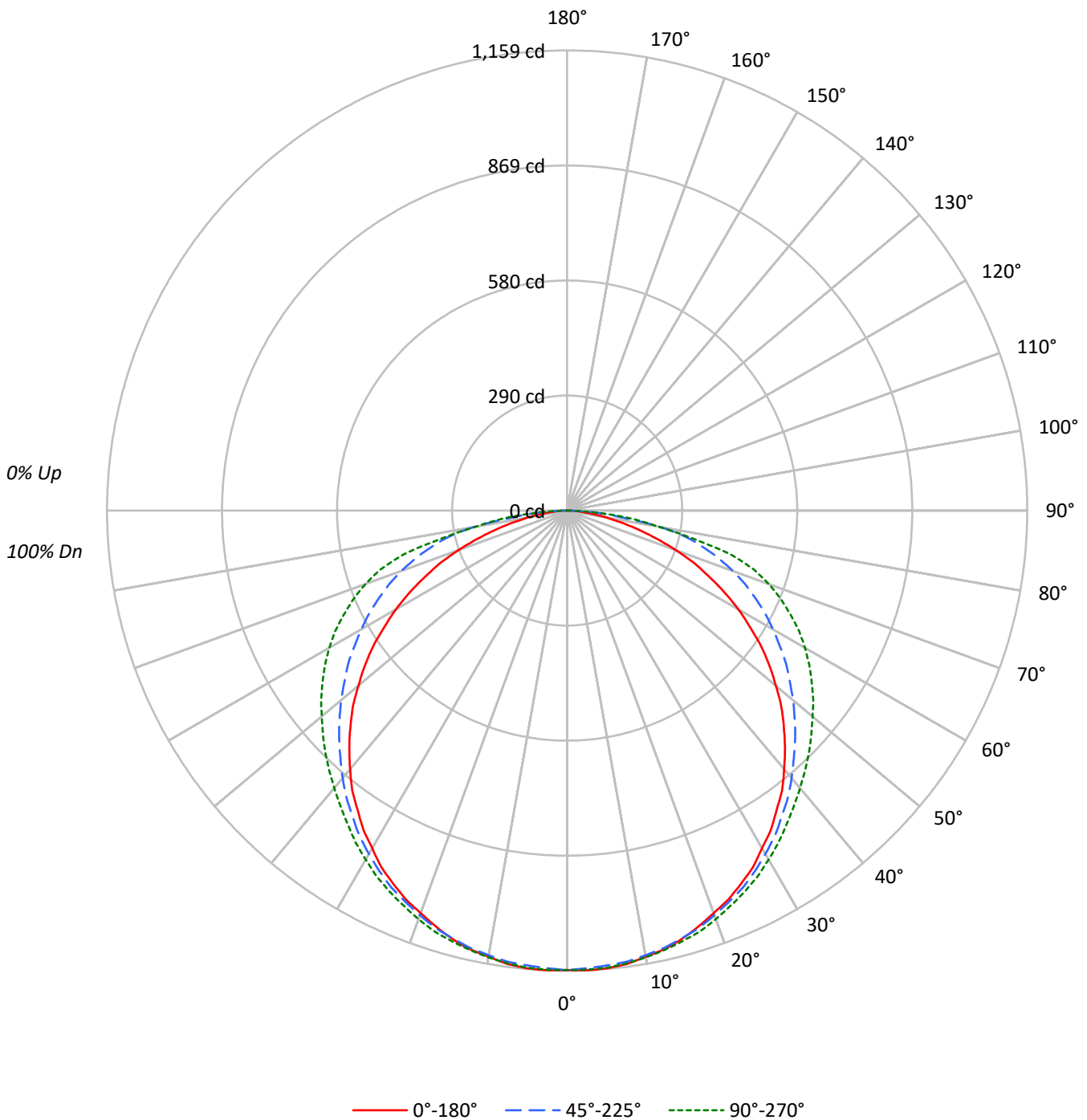
Lumens per Lamp: N/A  
Luminaire Lumens: 3680.0 lumens  
Efficiency: N/A  
Efficacy: 87.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 42.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1557	1557	1557
5°	1563	1553	1561
10°	1559	1554	1561
15°	1556	1554	1564
20°	1545	1552	1568
25°	1539	1555	1572
30°	1526	1551	1577
35°	1511	1547	1583
40°	1494	1545	1603
45°	1469	1546	1639
50°	1437	1555	1689
55°	1400	1580	1764
60°	1341	1611	1862
65°	1255	1668	1976
70°	1142	1745	2126
75°	968	1841	2220
80°	764	1853	1796
85°	563	1409	1578



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.8	3.0
10°-20°	315.9	8.6
20°-30°	483.1	13.1
30°-40°	590.6	16.0
40°-50°	629.5	17.1
50°-60°	601.9	16.4
60°-70°	509.9	13.9
70°-80°	342.7	9.3
80°-90°	96.7	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°	908.8	24.7
0°-40°	1499.5	40.7
0°-60°	2730.8	74.2
0°-90°	3680.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3680.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1157	1157	1157	1157	1157	
5°	1157	1155	1150	1155	1155	110
15°	1117	1117	1115	1124	1123	315
25°	1037	1040	1048	1057	1059	478
35°	920	927	942	960	964	576
45°	772	785	812	847	862	596
55°	597	619	674	726	752	532
65°	394	434	524	593	621	391
75°	186	254	354	414	427	199
85°	36	75	91	99	102	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1157.3	1157.3	1157.3	1157.3	1157.3
2.5°	1159.1	1159.1	1153.6	1157.3	1157.3
5°	1157.3	1155.4	1150.0	1155.4	1155.4
7.5°	1151.8	1150.0	1146.3	1151.8	1150.0
10°	1140.8	1140.8	1137.2	1142.7	1142.7
12.5°	1131.7	1129.9	1128.0	1135.4	1133.5
15°	1117.1	1117.1	1115.3	1124.4	1122.6
17.5°	1098.8	1100.7	1102.5	1109.8	1111.6
20°	1078.8	1082.4	1084.2	1095.2	1095.2
22.5°	1060.5	1062.3	1066.0	1076.9	1076.9
25°	1036.8	1040.4	1047.7	1056.9	1058.7
27.5°	1013.1	1014.9	1024.0	1036.8	1038.6
30°	982.0	987.5	998.5	1013.1	1014.9
32.5°	954.6	960.1	972.9	987.5	991.2
35°	920.0	927.3	941.9	960.1	963.8
37.5°	888.9	894.4	912.7	932.7	938.2
40°	850.6	861.6	879.8	903.5	912.7
42.5°	812.3	823.2	845.1	876.2	887.1
45°	772.1	784.9	812.3	846.9	861.6
47.5°	732.0	746.6	777.6	817.7	834.2
50°	686.3	704.6	742.9	788.5	806.8
52.5°	642.5	664.4	706.4	757.5	781.2
55°	596.9	618.8	673.5	726.5	752.0
57.5°	545.8	575.0	635.2	695.4	722.8
60°	498.3	525.7	598.7	664.4	691.8
62.5°	447.2	483.7	562.2	631.6	658.9
65°	394.3	434.4	523.9	593.2	620.6
67.5°	346.8	390.6	485.5	554.9	582.3
70°	290.2	345.0	443.6	512.9	540.3
72.5°	237.3	297.5	399.7	467.3	492.8
75°	186.2	253.7	354.1	414.3	427.1
77.5°	138.7	209.9	306.7	332.2	323.1
80°	98.6	167.9	239.1	226.3	231.8
82.5°	63.9	127.8	147.9	167.9	173.4
85°	36.5	74.8	91.3	98.6	102.2
87.5°	16.4	27.4	36.5	36.5	34.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)