

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: P391635

Luminaire Tested: **24CZ2-70VHE-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: P391635  
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: 24CZ2-70VHE-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**

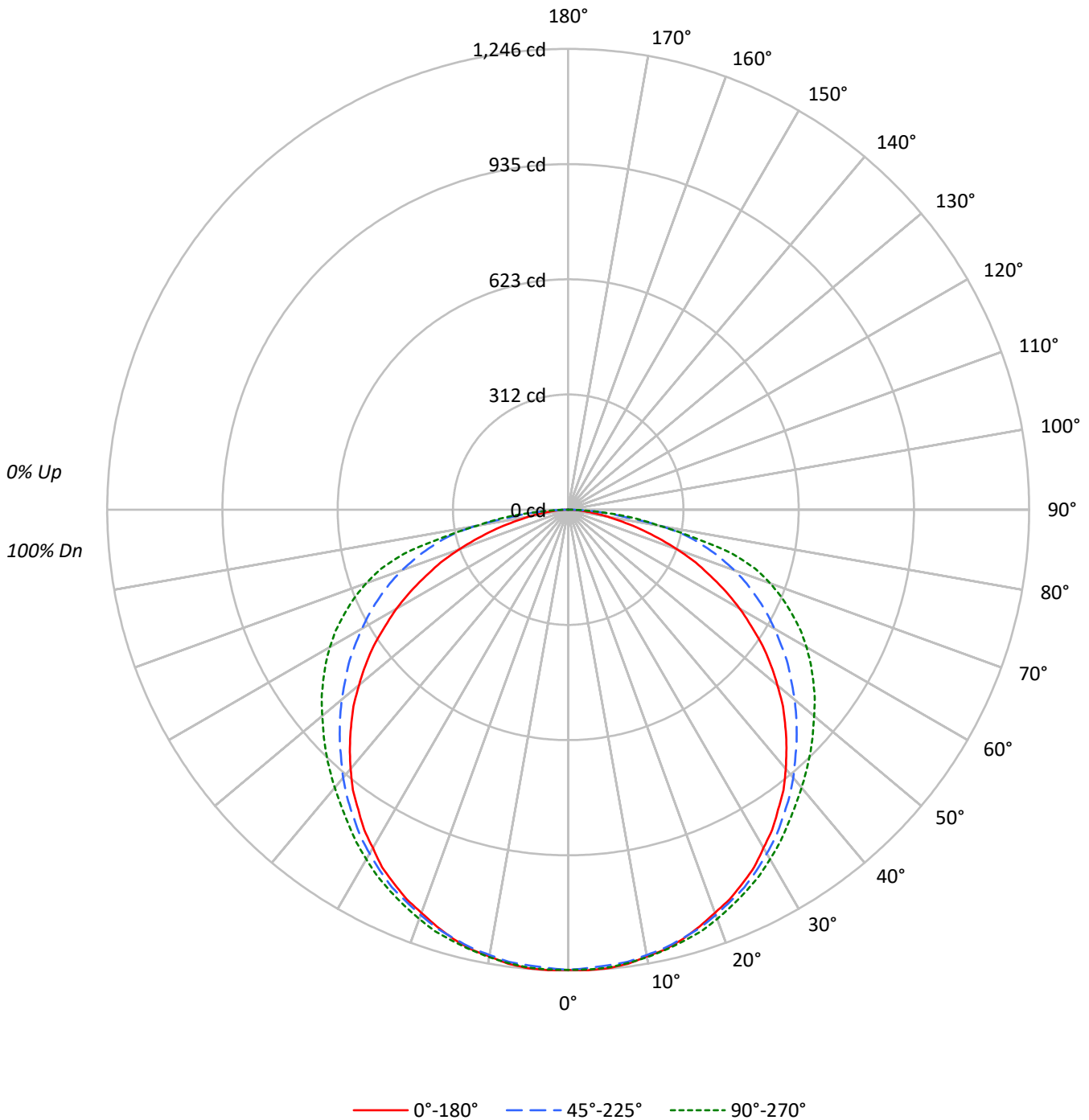
Lumens per Lamp: N/A  
Luminaire Lumens: 3956.9 lumens  
Efficiency: N/A  
Efficacy: 86.6 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 45.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1674	1674	1674
5°	1681	1670	1678
10°	1676	1671	1679
15°	1673	1670	1681
20°	1661	1669	1686
25°	1655	1673	1690
30°	1640	1668	1695
35°	1625	1663	1702
40°	1606	1662	1724
45°	1580	1662	1763
50°	1545	1672	1816
55°	1506	1699	1897
60°	1442	1732	2002
65°	1350	1793	2124
70°	1228	1876	2285
75°	1041	1980	2388
80°	821	1992	1932
85°	607	1514	1697



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.0	3.0
10°-20°	339.7	8.6
20°-30°	519.5	13.1
30°-40°	635.1	16.0
40°-50°	676.8	17.1
50°-60°	647.1	16.4
60°-70°	548.2	13.9
70°-80°	368.4	9.3
80°-90°	103.9	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°	977.2	24.7
0°-40°	1612.3	40.7
0°-60°	2936.3	74.2
0°-90°	3956.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3956.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1244	1244	1244	1244	1244	
5°	1244	1242	1236	1242	1242	118
15°	1201	1201	1199	1209	1207	339
25°	1115	1119	1127	1136	1138	514
35°	989	997	1013	1032	1036	620
45°	830	844	873	911	926	640
55°	642	665	724	781	809	572
65°	424	467	563	638	667	421
75°	200	273	381	446	459	214
85°	39	80	98	106	110	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1244.3	1244.3	1244.3	1244.3	1244.3
2.5°	1246.3	1246.3	1240.4	1244.3	1244.3
5°	1244.3	1242.4	1236.5	1242.4	1242.4
7.5°	1238.4	1236.5	1232.6	1238.4	1236.5
10°	1226.7	1226.7	1222.7	1228.6	1228.6
12.5°	1216.9	1214.9	1212.9	1220.8	1218.8
15°	1201.2	1201.2	1199.2	1209.0	1207.0
17.5°	1181.5	1183.5	1185.5	1193.3	1195.3
20°	1159.9	1163.9	1165.8	1177.6	1177.6
22.5°	1140.3	1142.3	1146.2	1158.0	1158.0
25°	1114.8	1118.7	1126.6	1136.4	1138.3
27.5°	1089.3	1091.2	1101.1	1114.8	1116.8
30°	1055.9	1061.8	1073.6	1089.3	1091.2
32.5°	1026.5	1032.4	1046.1	1061.8	1065.7
35°	989.2	997.0	1012.7	1032.4	1036.3
37.5°	955.8	961.7	981.3	1002.9	1008.8
40°	914.6	926.4	946.0	971.5	981.3
42.5°	873.4	885.2	908.7	942.1	953.9
45°	830.2	843.9	873.4	910.7	926.4
47.5°	787.0	802.7	836.1	879.3	896.9
50°	738.0	757.6	798.8	847.9	867.5
52.5°	690.9	714.4	759.6	814.5	840.0
55°	641.8	665.3	724.2	781.1	808.6
57.5°	586.8	618.2	683.0	747.8	777.2
60°	535.8	565.2	643.8	714.4	743.9
62.5°	480.9	520.1	604.5	679.1	708.5
65°	423.9	467.1	563.3	637.9	667.3
67.5°	372.9	420.0	522.1	596.7	626.1
70°	312.1	370.9	476.9	551.5	580.9
72.5°	255.1	319.9	429.8	502.4	529.9
75°	200.2	272.8	380.8	445.5	459.3
77.5°	149.2	225.7	329.7	357.2	347.4
80°	106.0	180.6	257.1	243.4	249.3
82.5°	68.7	137.4	159.0	180.6	186.5
85°	39.3	80.5	98.1	106.0	109.9
87.5°	17.7	29.4	39.3	39.3	37.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)