

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: P390773

Luminaire Tested: **22CZ2-85VHE-RDP-UNV-L940-CD1-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: P390773  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-85VHE-RDP-UNV-L940-CD1-U  
Description: 2x2 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: 4949.5 lumens  
Efficiency: N/A  
Efficacy: 77.8 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

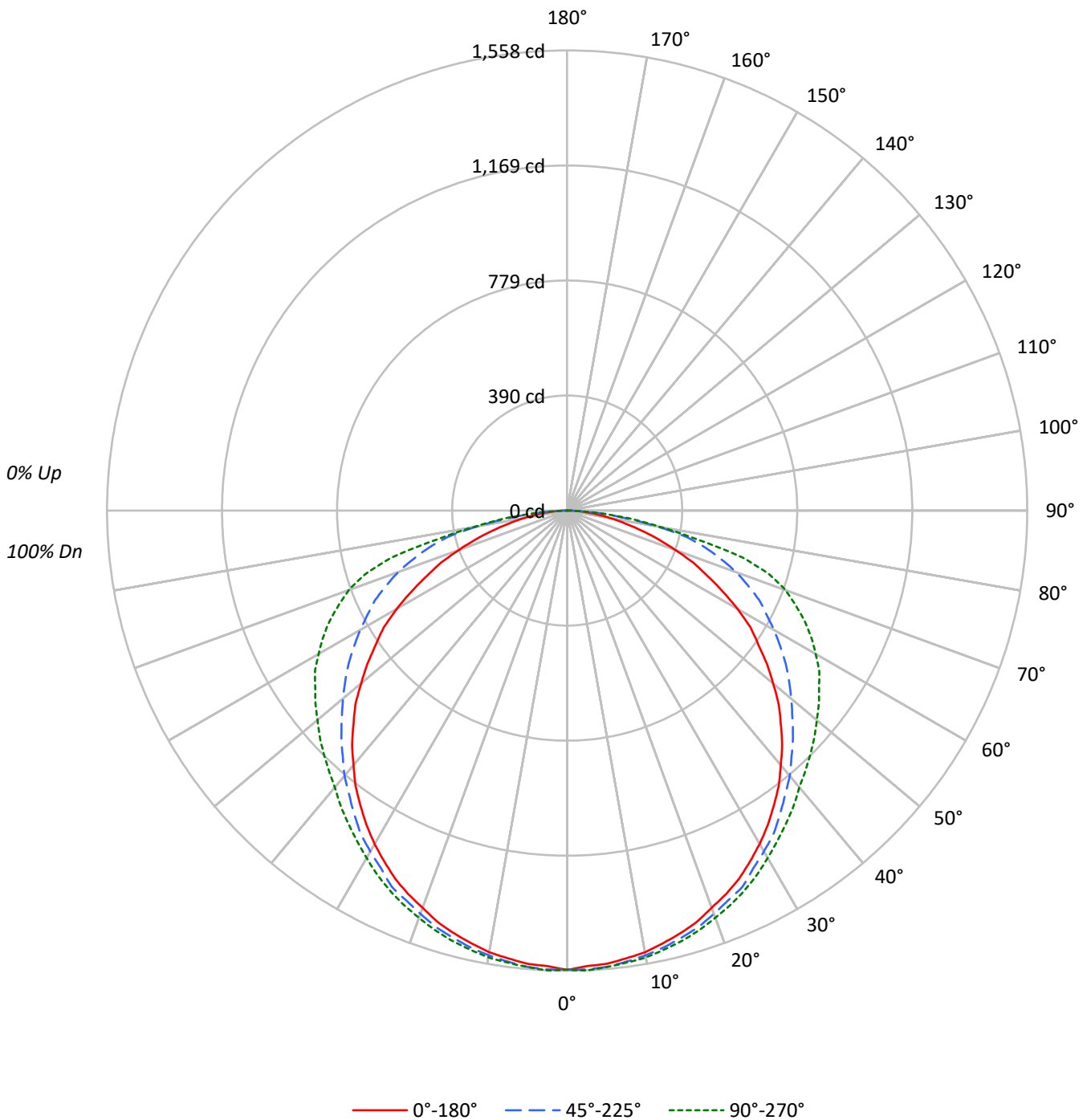
Input Watts (W): 63.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	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°	4184	4184	4184
5°	4160	4190	4190
10°	4149	4179	4198
15°	4128	4169	4199
20°	4098	4160	4202
25°	4086	4173	4216
30°	4050	4141	4220
35°	4007	4127	4246
40°	3952	4118	4298
45°	3894	4115	4434
50°	3811	4146	4618
55°	3707	4236	4885
60°	3586	4350	5232
65°	3338	4567	5657
70°	3065	4784	6188
75°	2688	5035	6397
80°	2314	4796	5022
85°	2022	3486	3822



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.1	3.0
10°-20°	422.3	8.5
20°-30°	644.2	13.0
30°-40°	786.6	15.9
40°-50°	841.1	17.0
50°-60°	811.8	16.4
60°-70°	698.8	14.1
70°-80°	472.8	9.6
80°-90°	124.8	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°	1213.6	24.5
0°-40°	2000.2	40.4
0°-60°	3653.1	73.8
0°-90°	4949.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4949.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1555	1555	1555	1555	1555	
5°	1540	1544	1551	1551	1551	146
15°	1482	1486	1496	1504	1507	418
25°	1376	1384	1405	1413	1420	633
35°	1220	1231	1256	1282	1293	763
45°	1023	1041	1081	1136	1165	790
55°	790	816	903	994	1041	708
65°	524	575	717	830	888	521
75°	258	342	484	583	615	277
85°	66	91	113	116	124	74
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1554.7	1554.7	1554.7	1554.7	1554.7
2.5°	1543.8	1547.4	1554.7	1554.7	1558.4
5°	1540.2	1543.8	1551.1	1551.1	1551.1
7.5°	1529.2	1532.9	1540.2	1543.8	1543.8
10°	1518.3	1522.0	1529.2	1532.9	1536.5
12.5°	1500.1	1503.7	1514.7	1522.0	1522.0
15°	1481.9	1485.5	1496.5	1503.7	1507.4
17.5°	1460.1	1467.3	1478.3	1485.5	1489.2
20°	1430.9	1438.2	1452.8	1463.7	1467.3
22.5°	1405.4	1412.7	1427.3	1438.2	1445.5
25°	1376.3	1383.6	1405.4	1412.7	1420.0
27.5°	1339.9	1347.2	1365.4	1380.0	1390.9
30°	1303.5	1310.8	1332.6	1350.8	1358.1
32.5°	1263.4	1274.4	1299.9	1314.4	1325.3
35°	1219.7	1230.7	1256.2	1281.6	1292.6
37.5°	1176.1	1187.0	1212.5	1245.2	1259.8
40°	1125.1	1139.6	1172.4	1216.1	1223.4
42.5°	1077.7	1096.0	1125.1	1176.1	1194.3
45°	1023.1	1041.3	1081.4	1136.0	1165.1
47.5°	972.2	990.4	1034.1	1099.6	1136.0
50°	910.3	935.7	990.4	1066.8	1103.2
52.5°	852.0	873.8	946.7	1030.4	1074.1
55°	790.1	815.6	903.0	994.0	1041.3
57.5°	735.5	757.3	855.6	957.6	1012.2
60°	666.3	695.4	808.3	917.5	972.2
62.5°	593.5	637.2	761.0	873.8	932.1
65°	524.3	575.3	717.3	830.2	888.4
67.5°	462.4	517.0	662.7	782.8	837.4
70°	389.6	458.8	608.1	724.6	786.5
72.5°	324.1	400.5	546.2	662.7	717.3
75°	258.5	342.3	484.3	582.6	615.3
77.5°	200.3	280.4	415.1	444.2	447.8
80°	149.3	222.1	309.5	313.1	324.1
82.5°	101.9	156.6	200.3	218.5	222.1
85°	65.5	91.0	112.9	116.5	123.8
87.5°	29.1	32.8	40.1	36.4	36.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)