

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: P390728

Luminaire Tested: **22CZ2-80VHE-RDP-UNV-L950-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: P390728  
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: 22CZ2-80VHE-RDP-UNV-L950-CD1-U  
Description: 2x2 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: 4934.6 lumens  
Efficiency: N/A  
Efficacy: 83.5 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

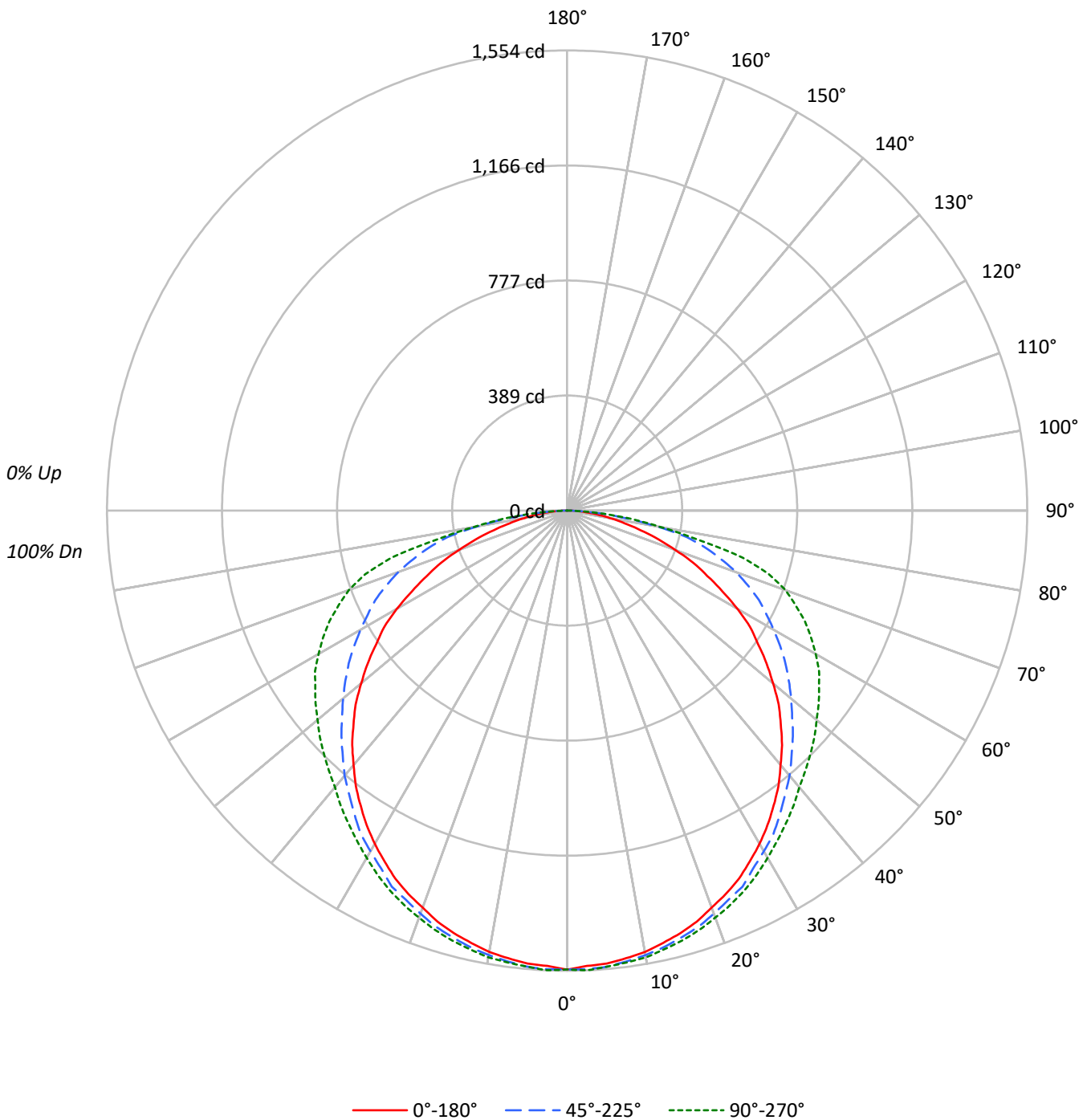
Input Watts (W): 59.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4171	4171	4171
5°	4148	4177	4177
10°	4136	4166	4186
15°	4116	4157	4187
20°	4085	4148	4189
25°	4074	4160	4203
30°	4038	4128	4207
35°	3995	4114	4233
40°	3940	4106	4285
45°	3882	4103	4421
50°	3799	4134	4605
55°	3696	4224	4871
60°	3575	4337	5216
65°	3328	4553	5640
70°	3056	4770	6169
75°	2679	5020	6379
80°	2306	4782	5007
85°	2016	3473	3810



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.6	3.0
10°-20°	421.0	8.5
20°-30°	642.3	13.0
30°-40°	784.3	15.9
40°-50°	838.5	17.0
50°-60°	809.4	16.4
60°-70°	696.7	14.1
70°-80°	471.4	9.6
80°-90°	124.4	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°	1209.9	24.5
0°-40°	1994.2	40.4
0°-60°	3642.1	73.8
0°-90°	4934.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4934.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1550	1550	1550	1550	1550	
5°	1536	1539	1546	1546	1546	146
15°	1477	1481	1492	1499	1503	417
25°	1372	1379	1401	1408	1416	632
35°	1216	1227	1252	1278	1289	761
45°	1020	1038	1078	1133	1162	787
55°	788	813	900	991	1038	706
65°	523	574	715	828	886	520
75°	258	341	483	581	614	277
85°	65	91	112	116	123	74
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1550.0	1550.0	1550.0	1550.0	1550.0
2.5°	1539.2	1542.8	1550.0	1550.0	1553.7
5°	1535.5	1539.2	1546.4	1546.4	1546.4
7.5°	1524.6	1528.3	1535.5	1539.2	1539.2
10°	1513.7	1517.4	1524.6	1528.3	1531.9
12.5°	1495.6	1499.2	1510.1	1517.4	1517.4
15°	1477.4	1481.1	1492.0	1499.2	1502.9
17.5°	1455.7	1462.9	1473.8	1481.1	1484.7
20°	1426.6	1433.9	1448.4	1459.3	1462.9
22.5°	1401.2	1408.5	1423.0	1433.9	1441.1
25°	1372.2	1379.4	1401.2	1408.5	1415.7
27.5°	1335.9	1343.1	1361.3	1375.8	1386.7
30°	1299.6	1306.8	1328.6	1346.8	1354.0
32.5°	1259.6	1270.5	1295.9	1310.5	1321.3
35°	1216.1	1227.0	1252.4	1277.8	1288.7
37.5°	1172.5	1183.4	1208.8	1241.5	1256.0
40°	1121.7	1136.2	1168.9	1212.4	1219.7
42.5°	1074.5	1092.7	1121.7	1172.5	1190.7
45°	1020.1	1038.2	1078.1	1132.6	1161.6
47.5°	969.2	987.4	1030.9	1096.3	1132.6
50°	907.5	932.9	987.4	1063.6	1099.9
52.5°	849.4	871.2	943.8	1027.3	1070.9
55°	787.7	813.1	900.3	991.0	1038.2
57.5°	733.3	755.1	853.1	954.7	1009.2
60°	664.3	693.3	805.9	914.8	969.2
62.5°	591.7	635.3	758.7	871.2	929.3
65°	522.7	573.6	715.1	827.7	885.7
67.5°	461.0	515.5	660.7	780.5	834.9
70°	388.4	457.4	606.2	722.4	784.1
72.5°	323.1	399.3	544.5	660.7	715.1
75°	257.7	341.2	482.8	580.8	613.5
77.5°	199.7	279.5	413.8	442.9	446.5
80°	148.8	221.4	308.6	312.2	323.1
82.5°	101.6	156.1	199.7	217.8	221.4
85°	65.3	90.8	112.5	116.2	123.4
87.5°	29.0	32.7	39.9	36.3	36.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)