

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: P389281

Luminaire Tested: **22CZ2-50VHE-S-UNV-L935-CD1-SWPD1-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: P389281
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-50VHE-S-UNV-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4470.1 lumens
Efficiency: N/A
Efficacy: 123.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

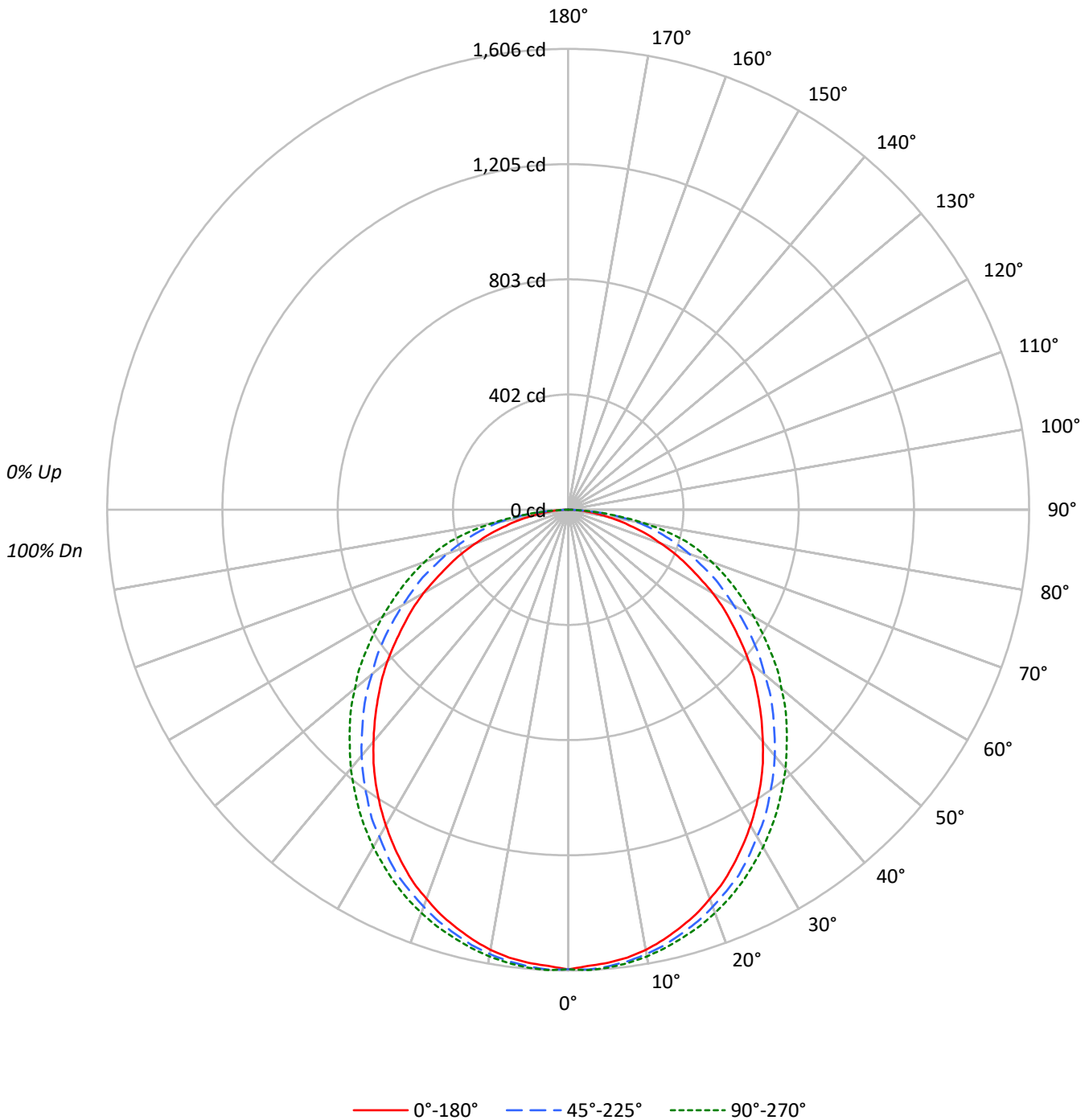
Input Watts (W): 36.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4310	4310	4310
5°	4282	4316	4327
10°	4257	4297	4320
15°	4201	4259	4300
20°	4133	4217	4282
25°	4050	4174	4254
30°	3947	4089	4219
35°	3837	4015	4179
40°	3707	3934	4140
45°	3572	3842	4096
50°	3440	3737	4060
55°	3278	3669	4031
60°	3132	3581	4019
65°	2921	3559	4064
70°	2691	3528	4184
75°	2429	3578	4402
80°	2101	3685	4138
85°	1738	3091	3091



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.5	3.4
10°-20°	431.1	9.6
20°-30°	645.0	14.4
30°-40°	763.8	17.1
40°-50°	778.4	17.4
50°-60°	697.7	15.6
60°-70°	546.3	12.2
70°-80°	352.2	7.9
80°-90°	104.1	2.3
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°	1227.6	27.5
0°-40°	1991.4	44.5
0°-60°	3467.5	77.6
0°-90°	4470.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4470.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1602	1602	1602	1602	1602	
5°	1585	1589	1598	1600	1602	150
15°	1508	1516	1529	1541	1543	425
25°	1364	1376	1406	1424	1433	628
35°	1168	1183	1222	1260	1272	730
45°	938	959	1010	1062	1076	725
55°	699	722	782	836	859	626
65°	459	486	559	613	638	456
75°	234	269	344	402	423	250
85°	56	77	100	100	100	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1601.8	1601.8	1601.8	1601.8	1601.8
2.5°	1591.3	1595.5	1603.9	1605.9	1605.9
5°	1585.1	1589.3	1597.6	1599.7	1601.8
7.5°	1574.7	1576.7	1587.2	1591.3	1593.4
10°	1558.0	1562.1	1572.6	1578.8	1580.9
12.5°	1535.0	1541.3	1553.8	1562.1	1564.2
15°	1507.9	1516.3	1528.8	1541.3	1543.4
17.5°	1478.7	1487.1	1503.8	1518.4	1522.5
20°	1443.3	1453.7	1472.5	1489.2	1495.4
22.5°	1407.8	1416.2	1439.1	1460.0	1466.2
25°	1364.0	1376.5	1405.7	1424.5	1432.8
27.5°	1318.1	1332.7	1361.9	1387.0	1395.3
30°	1270.2	1284.8	1316.0	1347.3	1357.8
32.5°	1220.1	1236.8	1274.3	1305.6	1316.0
35°	1168.0	1182.6	1222.2	1259.7	1272.2
37.5°	1113.7	1126.2	1172.1	1211.8	1224.3
40°	1055.3	1072.0	1120.0	1165.9	1178.4
42.5°	996.9	1015.7	1063.7	1113.7	1126.2
45°	938.5	959.4	1009.5	1061.6	1076.2
47.5°	882.2	898.9	955.2	1005.3	1026.1
50°	821.7	838.4	892.7	949.0	969.8
52.5°	759.2	782.1	840.5	894.7	919.8
55°	698.7	721.6	782.1	836.3	859.3
57.5°	642.4	661.1	723.7	780.0	803.0
60°	581.9	598.6	665.3	725.8	746.7
62.5°	517.2	542.3	611.1	667.4	692.4
65°	458.8	486.0	559.0	613.2	638.2
67.5°	404.6	429.6	500.6	559.0	586.1
70°	342.0	375.4	448.4	506.8	531.8
72.5°	292.0	321.2	396.3	454.7	481.8
75°	233.6	269.0	344.1	402.5	423.4
77.5°	185.6	221.1	292.0	337.9	348.3
80°	135.6	171.0	237.8	260.7	267.0
82.5°	91.8	125.1	171.0	177.3	179.4
85°	56.3	77.2	100.1	100.1	100.1
87.5°	27.1	31.3	35.5	33.4	33.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)