

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: P388061

Luminaire Tested: **22CZ2-50VHE-SQR-UNV-L935-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: P388061
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-50VHE-SQR-UNV-L935-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4137.1 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

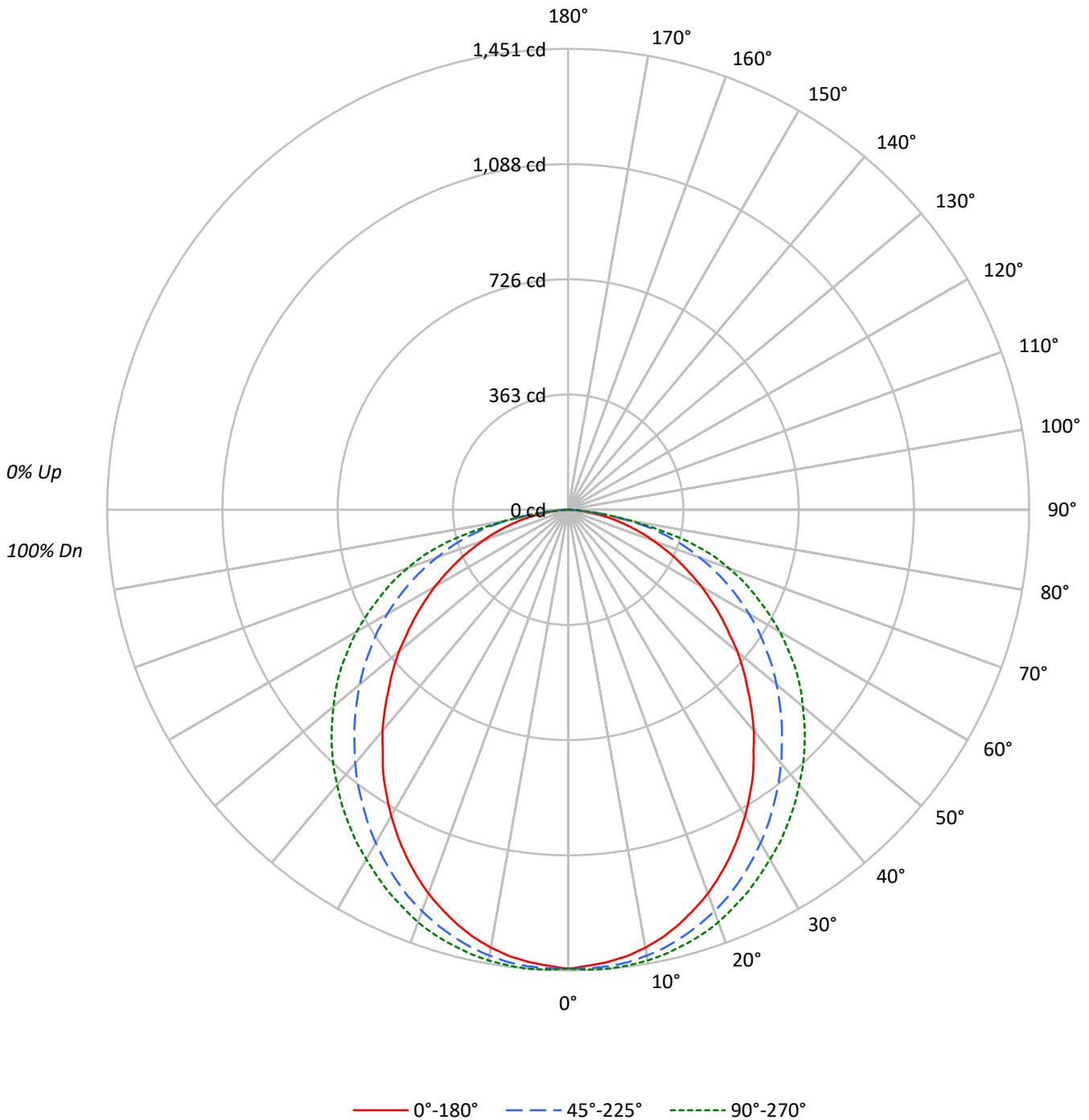
Input Watts (W): 36.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3889	3889	3889
5°	3861	3898	3920
10°	3825	3895	3938
15°	3763	3879	3950
20°	3683	3852	3959
25°	3580	3813	3953
30°	3459	3764	3947
35°	3335	3709	3960
40°	3194	3663	3973
45°	3041	3617	4005
50°	2910	3584	4036
55°	2754	3556	4100
60°	2610	3540	4142
65°	2438	3514	4176
70°	2240	3460	4233
75°	2021	3369	4083
80°	1734	2982	3073
85°	1396	1757	1396



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.0	3.3
10°-20°	391.7	9.5
20°-30°	588.3	14.2
30°-40°	701.7	17.0
40°-50°	725.5	17.5
50°-60°	667.0	16.1
60°-70°	531.0	12.8
70°-80°	324.4	7.8
80°-90°	70.5	1.7
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°	1117.1	27.0
0°-40°	1818.7	44.0
0°-60°	3211.2	77.6
0°-90°	4137.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4137.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1445	1445	1445	1445	1445	
5°	1430	1433	1443	1449	1451	136
15°	1351	1367	1392	1412	1418	380
25°	1206	1235	1284	1320	1331	555
35°	1015	1058	1129	1188	1206	633
45°	799	856	950	1027	1052	618
55°	587	652	758	844	874	525
65°	383	448	552	628	656	379
75°	194	251	324	381	393	207
85°	45	55	57	49	45	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1445.2	1445.2	1445.2	1445.2	1445.2
2.5°	1437.3	1439.3	1445.2	1449.1	1449.1
5°	1429.5	1433.4	1443.2	1449.1	1451.1
7.5°	1417.7	1423.6	1437.3	1445.2	1447.2
10°	1400.0	1407.9	1425.6	1437.3	1441.3
12.5°	1378.4	1390.2	1411.8	1427.5	1431.4
15°	1350.9	1366.6	1392.2	1411.8	1417.7
17.5°	1319.5	1339.2	1370.6	1394.1	1402.0
20°	1286.1	1305.8	1345.0	1372.5	1382.4
22.5°	1246.9	1272.4	1317.6	1349.0	1356.8
25°	1205.6	1235.1	1284.2	1319.5	1331.3
27.5°	1160.5	1195.8	1248.8	1292.0	1301.8
30°	1113.3	1150.7	1211.5	1258.6	1270.4
32.5°	1064.3	1107.5	1172.3	1225.3	1241.0
35°	1015.2	1058.4	1129.1	1188.0	1205.6
37.5°	958.2	1009.3	1087.8	1148.7	1170.3
40°	909.1	958.2	1042.7	1109.4	1131.0
42.5°	854.2	907.2	995.5	1068.2	1093.7
45°	799.2	856.1	950.4	1026.9	1052.5
47.5°	748.1	805.1	903.2	983.7	1009.3
50°	695.1	754.0	856.1	938.6	964.1
52.5°	638.2	703.0	809.0	891.5	920.9
55°	587.1	651.9	757.9	844.3	873.8
57.5°	534.1	600.9	710.8	793.3	820.8
60°	485.0	549.8	657.8	738.3	769.7
62.5°	432.0	498.7	604.8	683.3	712.8
65°	382.9	447.7	551.8	628.3	655.8
67.5°	333.8	398.6	496.8	569.4	600.9
70°	284.7	349.5	439.8	510.5	538.0
72.5°	241.5	298.5	384.9	449.7	475.2
75°	194.4	251.3	324.0	380.9	392.7
77.5°	151.2	202.2	263.1	288.6	292.6
80°	111.9	151.2	192.4	198.3	198.3
82.5°	74.6	104.1	119.8	121.7	119.8
85°	45.2	55.0	56.9	49.1	45.2
87.5°	15.7	15.7	9.8	5.9	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)