

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: P230598

Luminaire Tested: **22CZ-LD5-44-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230598
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25712)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-44-S-UNV-L940-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3989.0 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.24 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

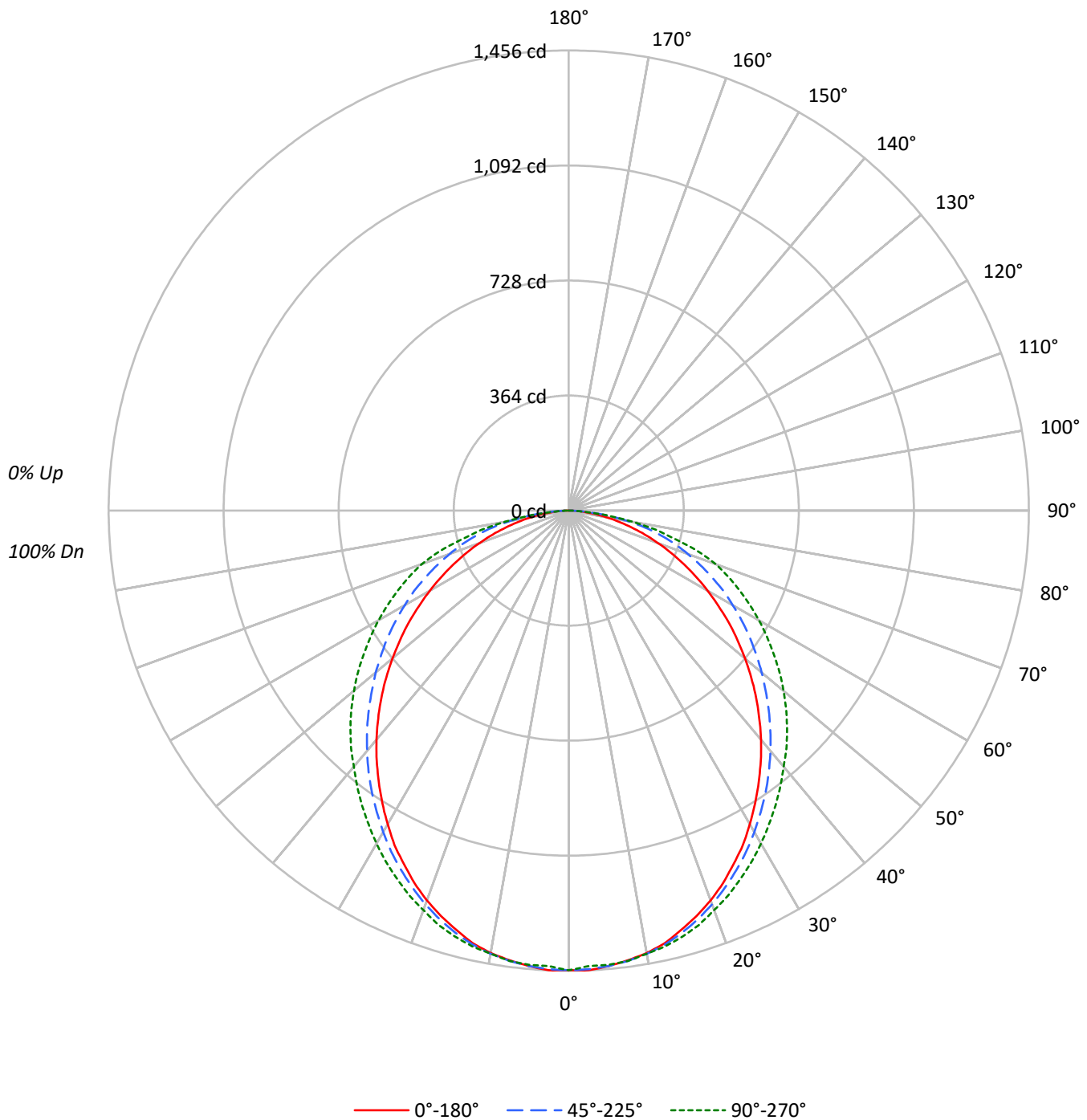
Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83		
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69		
3	90	79	71	64	87	78	70	64	75	68	63	72	66	62	69	64	60	58		
4	82	70	61	54	80	69	61	54	66	59	53	64	58	53	62	56	52	50		
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43		
6	70	56	47	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38		
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33		
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30		
9	56	43	35	29	55	42	34	29	41	34	29	40	34	29	39	33	29	27		
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3913	3913	3913
5°	3908	3908	3897
10°	3885	3890	3890
15°	3827	3854	3886
20°	3758	3797	3852
25°	3664	3726	3817
30°	3560	3649	3780
35°	3443	3569	3745
40°	3325	3486	3715
45°	3194	3405	3718
50°	3048	3337	3714
55°	2904	3281	3712
60°	2732	3228	3743
65°	2562	3184	3794
70°	2367	3150	3889
75°	2131	3127	3606
80°	1870	2910	3147
85°	1538	2189	1951



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.3	3.4
10°-20°	390.1	9.8
20°-30°	579.4	14.5
30°-40°	682.0	17.1
40°-50°	695.3	17.4
50°-60°	627.1	15.7
60°-70°	494.0	12.4
70°-80°	304.7	7.6
80°-90°	79.1	2.0
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°	1106.8	27.7
0°-40°	1788.9	44.8
0°-60°	3111.3	78.0
0°-90°	3989.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3989.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1454	1454	1454	1454	1454	
5°	1447	1448	1447	1445	1443	137
15°	1374	1380	1383	1391	1395	387
25°	1234	1242	1255	1276	1286	569
35°	1048	1060	1086	1121	1140	656
45°	839	853	895	948	977	647
55°	619	640	699	763	791	552
65°	402	431	500	563	596	399
75°	205	240	301	335	347	219
85°	50	63	71	67	63	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1454.2	1454.2	1454.2	1454.2	1454.2
2.5°	1456.1	1456.1	1452.3	1448.5	1442.7
5°	1446.6	1448.5	1446.6	1444.6	1442.7
7.5°	1435.1	1437.0	1437.0	1437.0	1437.0
10°	1421.7	1423.6	1423.6	1423.6	1423.6
12.5°	1402.5	1404.4	1406.3	1408.2	1412.1
15°	1373.8	1379.5	1383.3	1391.0	1394.8
17.5°	1345.0	1350.8	1356.5	1366.1	1373.8
20°	1312.4	1316.3	1325.9	1337.4	1345.0
22.5°	1276.0	1281.8	1291.4	1306.7	1318.2
25°	1233.9	1241.6	1255.0	1276.0	1285.6
27.5°	1193.7	1199.4	1216.6	1239.6	1253.0
30°	1145.8	1153.4	1174.5	1203.2	1216.6
32.5°	1097.9	1107.4	1130.4	1163.0	1178.3
35°	1048.0	1059.5	1086.4	1120.8	1140.0
37.5°	998.2	1009.7	1040.4	1078.7	1099.8
40°	946.5	958.0	992.5	1034.6	1057.6
42.5°	892.8	906.3	944.6	992.5	1019.3
45°	839.2	852.6	894.8	948.4	977.1
47.5°	783.6	799.0	844.9	904.3	933.1
50°	728.1	745.3	797.0	858.4	887.1
52.5°	672.5	691.7	747.2	810.5	841.1
55°	618.9	639.9	699.3	762.6	791.3
57.5°	561.4	586.3	649.5	710.8	743.4
60°	507.7	534.6	599.7	661.0	695.5
62.5°	454.1	482.8	551.8	613.1	645.7
65°	402.4	431.1	500.1	563.3	595.9
67.5°	350.6	383.2	450.3	513.5	546.1
70°	300.8	335.3	400.4	461.8	494.3
72.5°	252.9	287.4	352.5	410.0	429.2
75°	205.0	239.5	300.8	335.3	346.8
77.5°	160.9	193.5	247.2	268.2	283.6
80°	120.7	149.4	187.8	201.2	203.1
82.5°	82.4	107.3	130.3	132.2	130.3
85°	49.8	63.2	70.9	67.1	63.2
87.5°	23.0	24.9	23.0	15.3	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)