

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: P230602

Luminaire Tested: **22CZ-LD5-20SE-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230602
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-LD5-20SE-S-UNV-L940-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SMOOTH LENS
Light Source: (56) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1862.0 lumens
Efficiency: N/A
Efficacy: 108.3 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

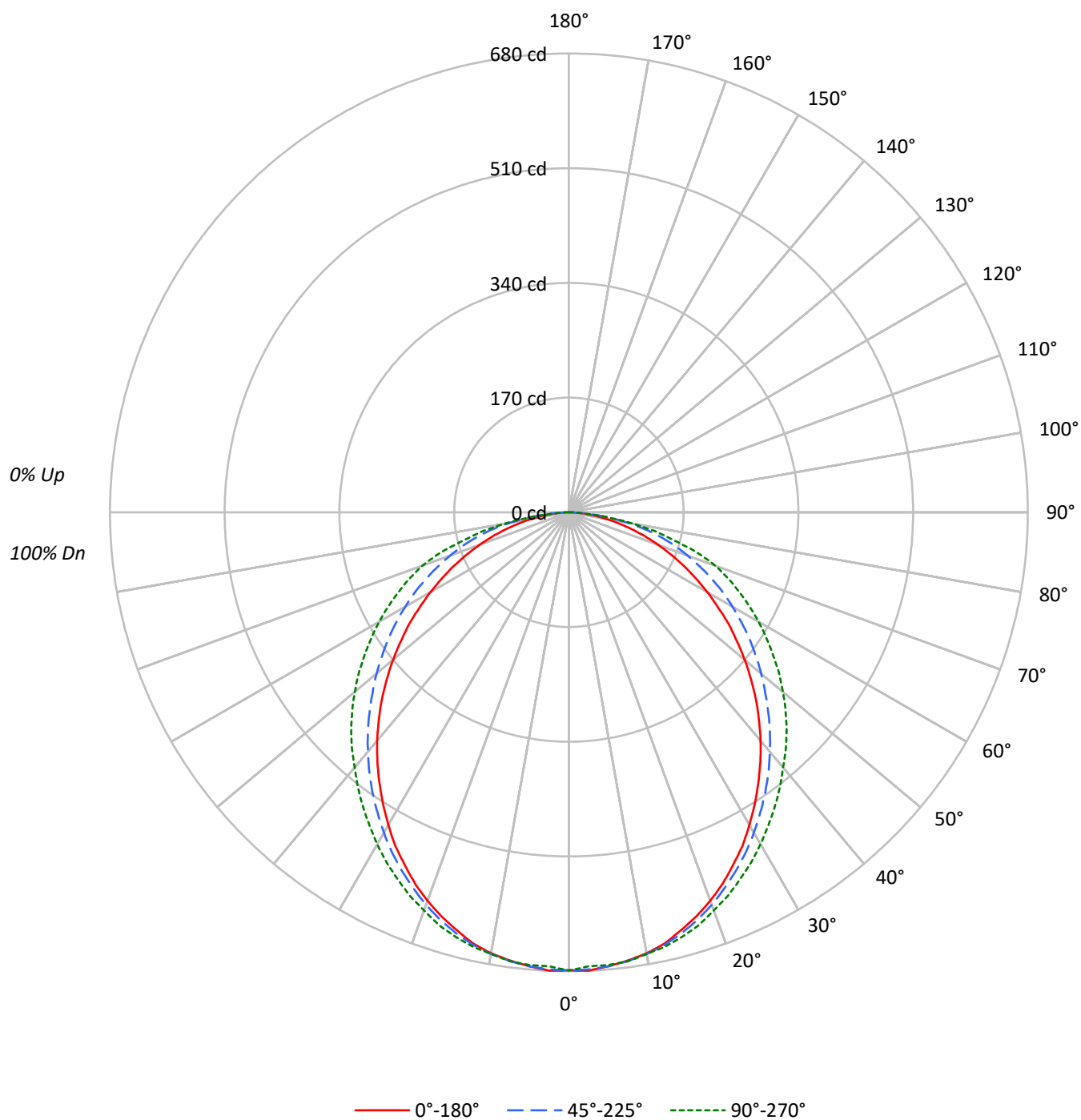
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1827	1827	1827
5°	1824	1824	1819
10°	1813	1816	1816
15°	1786	1799	1814
20°	1754	1772	1798
25°	1710	1739	1782
30°	1662	1703	1765
35°	1607	1666	1748
40°	1552	1627	1734
45°	1491	1590	1736
50°	1423	1557	1734
55°	1355	1531	1733
60°	1276	1506	1747
65°	1196	1486	1771
70°	1105	1471	1815
75°	995	1460	1683
80°	872	1358	1469
85°	719	1022	911



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	3.4
10°-20°	182.1	9.8
20°-30°	270.5	14.5
30°-40°	318.4	17.1
40°-50°	324.6	17.4
50°-60°	292.7	15.7
60°-70°	230.6	12.4
70°-80°	142.2	7.6
80°-90°	36.9	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°	516.7	27.7
0°-40°	835.0	44.8
0°-60°	1452.3	78.0
0°-90°	1862.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1862.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	679	679	679	679	679	
5°	675	676	675	674	673	64
15°	641	644	646	649	651	181
25°	576	580	586	596	600	265
35°	489	495	507	523	532	306
45°	392	398	418	443	456	302
55°	289	299	326	356	369	258
65°	188	201	233	263	278	186
75°	96	112	140	156	162	102
85°	23	30	33	31	30	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	678.8	678.8	678.8	678.8	678.8
2.5°	679.7	679.7	677.9	676.1	673.4
5°	675.2	676.1	675.2	674.3	673.4
7.5°	669.9	670.8	670.8	670.8	670.8
10°	663.6	664.5	664.5	664.5	664.5
12.5°	654.7	655.6	656.5	657.3	659.1
15°	641.2	643.9	645.7	649.3	651.1
17.5°	627.8	630.5	633.2	637.7	641.2
20°	612.6	614.4	618.9	624.3	627.8
22.5°	595.6	598.3	602.8	609.9	615.3
25°	576.0	579.5	585.8	595.6	600.1
27.5°	557.2	559.9	567.9	578.6	584.9
30°	534.8	538.4	548.2	561.6	567.9
32.5°	512.5	516.9	527.7	542.9	550.0
35°	489.2	494.6	507.1	523.2	532.1
37.5°	466.0	471.3	485.6	503.5	513.4
40°	441.8	447.2	463.3	482.9	493.7
42.5°	416.8	423.0	440.9	463.3	475.8
45°	391.7	398.0	417.7	442.7	456.1
47.5°	365.8	372.9	394.4	422.1	435.5
50°	339.9	347.9	372.0	400.7	414.1
52.5°	313.9	322.9	348.8	378.3	392.6
55°	288.9	298.7	326.4	355.9	369.4
57.5°	262.0	273.7	303.2	331.8	347.0
60°	237.0	249.5	279.9	308.5	324.6
62.5°	212.0	225.4	257.6	286.2	301.4
65°	187.8	201.2	233.4	262.9	278.1
67.5°	163.7	178.9	210.2	239.7	254.9
70°	140.4	156.5	186.9	215.5	230.7
72.5°	118.1	134.2	164.6	191.4	200.3
75°	95.7	111.8	140.4	156.5	161.9
77.5°	75.1	90.3	115.4	125.2	132.4
80°	56.3	69.8	87.6	93.9	94.8
82.5°	38.5	50.1	60.8	61.7	60.8
85°	23.3	29.5	33.1	31.3	29.5
87.5°	10.7	11.6	10.7	7.2	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)