

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: P230577

Luminaire Tested: **22CZ-LD5-20-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230577
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-LD5-20-S-UNV-L935-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1832.0 lumens
Efficiency: N/A
Efficacy: 111.7 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

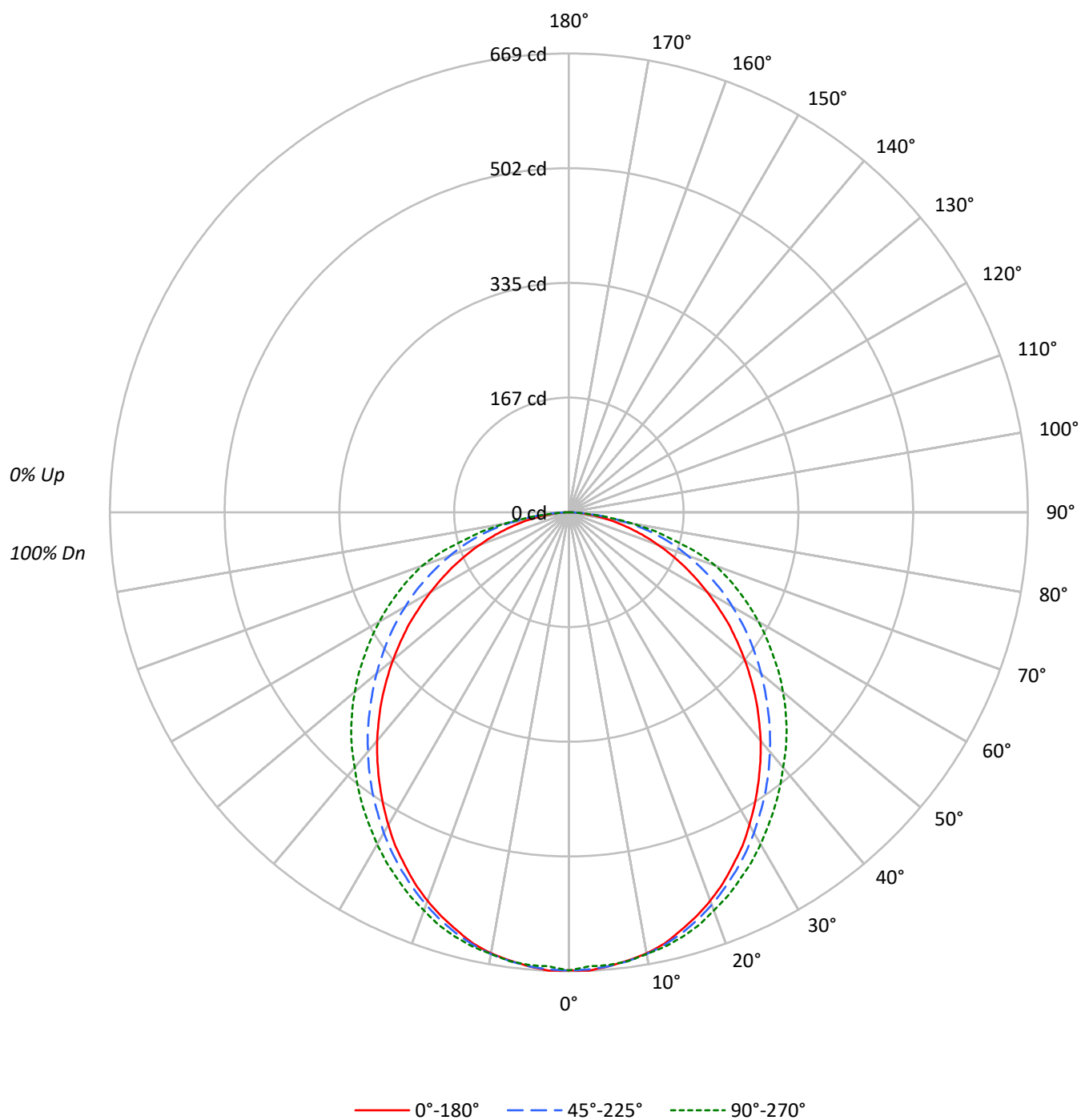
Input Watts (W): 16.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1797	1797	1797
5°	1795	1795	1790
10°	1784	1787	1787
15°	1758	1770	1785
20°	1726	1744	1769
25°	1683	1711	1753
30°	1635	1676	1736
35°	1581	1639	1720
40°	1527	1601	1706
45°	1467	1564	1708
50°	1400	1533	1706
55°	1333	1507	1705
60°	1255	1482	1719
65°	1177	1463	1743
70°	1087	1447	1786
75°	979	1437	1656
80°	859	1336	1446
85°	707	1007	895



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.1	3.4
10°-20°	179.2	9.8
20°-30°	266.1	14.5
30°-40°	313.2	17.1
40°-50°	319.3	17.4
50°-60°	288.0	15.7
60°-70°	226.9	12.4
70°-80°	139.9	7.6
80°-90°	36.3	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°	508.3	27.7
0°-40°	821.6	44.8
0°-60°	1428.9	78.0
0°-90°	1832.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1832.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	668	668	668	668	668	
5°	664	665	664	664	663	63
15°	631	634	635	639	641	178
25°	567	570	576	586	590	261
35°	481	487	499	515	524	301
45°	385	392	411	436	449	297
55°	284	294	321	350	363	254
65°	185	198	230	259	274	183
75°	94	110	138	154	159	100
85°	23	29	33	31	29	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	667.9	667.9	667.9	667.9	667.9
2.5°	668.8	668.8	667.0	665.2	662.6
5°	664.4	665.2	664.4	663.5	662.6
7.5°	659.1	660.0	660.0	660.0	660.0
10°	652.9	653.8	653.8	653.8	653.8
12.5°	644.1	645.0	645.9	646.8	648.5
15°	630.9	633.6	635.3	638.8	640.6
17.5°	617.7	620.4	623.0	627.4	630.9
20°	602.8	604.5	608.9	614.2	617.7
22.5°	586.0	588.7	593.1	600.1	605.4
25°	566.7	570.2	576.4	586.0	590.4
27.5°	548.2	550.8	558.8	569.3	575.5
30°	526.2	529.7	539.4	552.6	558.8
32.5°	504.2	508.6	519.2	534.1	541.2
35°	481.3	486.6	498.9	514.8	523.6
37.5°	458.4	463.7	477.8	495.4	505.1
40°	434.7	440.0	455.8	475.2	485.7
42.5°	410.1	416.2	433.8	455.8	468.1
45°	385.4	391.6	410.9	435.6	448.8
47.5°	359.9	366.9	388.1	415.3	428.5
50°	334.4	342.3	366.1	394.2	407.4
52.5°	308.9	317.7	343.2	372.2	386.3
55°	284.2	293.9	321.2	350.2	363.4
57.5°	257.8	269.3	298.3	326.5	341.4
60°	233.2	245.5	275.4	303.6	319.4
62.5°	208.5	221.7	253.4	281.6	296.5
65°	184.8	198.0	229.7	258.7	273.7
67.5°	161.0	176.0	206.8	235.8	250.8
70°	138.2	154.0	183.9	212.1	227.0
72.5°	116.2	132.0	161.9	188.3	197.1
75°	94.2	110.0	138.2	154.0	159.3
77.5°	73.9	88.9	113.5	123.2	130.2
80°	55.4	68.6	86.2	92.4	93.3
82.5°	37.8	49.3	59.8	60.7	59.8
85°	22.9	29.0	32.6	30.8	29.0
87.5°	10.6	11.4	10.6	7.0	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)