

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: P230534

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230534
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25706)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-20-UNV-L940-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH RIBBED LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1840.0 lumens
Efficiency: N/A
Efficacy: 112.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

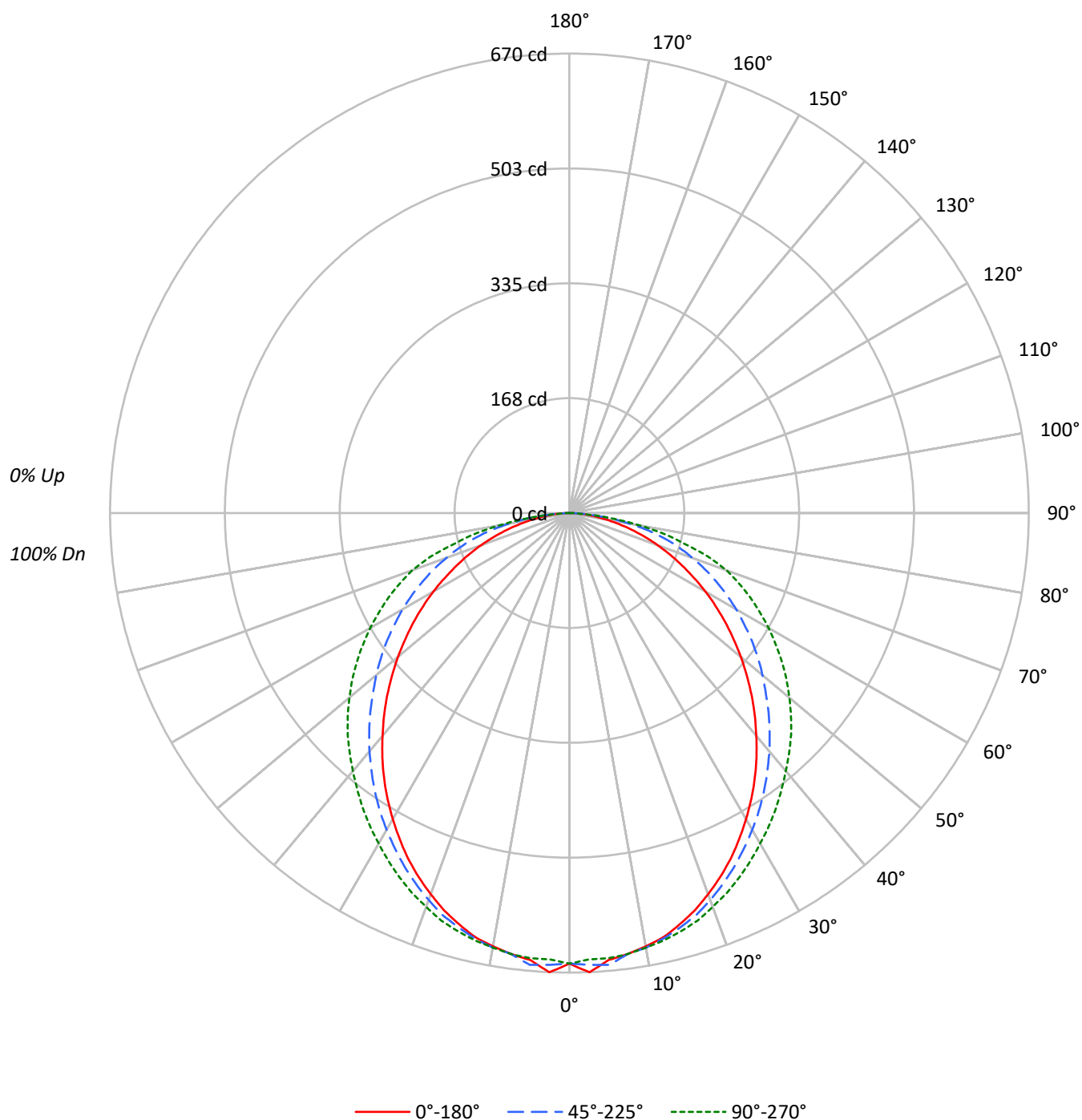
Input Watts (W): 16.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20				
RC	80				70					50					30				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	0
RCR																			
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	
1	108	104	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	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58	
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49	
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43	
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37	
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33	
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29	
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26	
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1767	1767	1767
5°	1767	1786	1760
10°	1753	1758	1758
15°	1730	1742	1757
20°	1694	1719	1750
25°	1652	1690	1740
30°	1601	1657	1729
35°	1549	1625	1725
40°	1490	1593	1725
45°	1430	1563	1740
50°	1367	1539	1753
55°	1301	1524	1776
60°	1233	1512	1806
65°	1156	1504	1852
70°	1077	1500	1915
75°	977	1498	1814
80°	846	1387	1609
85°	719	1050	1022



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.3	3.4
10°-20°	176.4	9.6
20°-30°	262.5	14.3
30°-40°	310.4	16.9
40°-50°	319.1	17.3
50°-60°	291.6	15.8
60°-70°	233.2	12.7
70°-80°	146.4	8.0
80°-90°	38.1	2.1
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°	501.2	27.2
0°-40°	811.6	44.1
0°-60°	1422.3	77.3
0°-90°	1840.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1840.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	657	657	657	657	657	
5°	654	654	661	657	651	62
15°	621	622	625	629	631	175
25°	556	560	569	579	586	256
35°	472	478	495	514	525	295
45°	376	386	411	441	457	290
55°	277	291	325	361	378	248
65°	182	198	236	272	291	180
75°	94	112	144	166	174	100
85°	23	30	34	33	33	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	656.8	656.8	656.8	656.8	656.8
2.5°	670.2	667.5	659.4	654.1	651.4
5°	654.1	654.1	661.2	656.8	651.4
7.5°	648.7	648.7	648.7	662.1	648.7
10°	641.5	642.4	643.3	648.7	643.3
12.5°	633.5	633.5	635.3	637.1	638.0
15°	621.0	621.9	625.4	629.0	630.8
17.5°	607.5	610.2	614.7	619.2	622.8
20°	591.4	595.0	600.4	607.5	611.1
22.5°	574.4	578.0	585.2	593.2	599.5
25°	556.5	560.1	569.1	578.9	586.1
27.5°	536.0	540.4	551.2	564.6	571.8
30°	515.4	520.8	533.3	548.5	556.5
32.5°	493.9	500.2	514.5	531.5	541.3
35°	471.5	477.8	494.8	513.6	525.2
37.5°	448.3	455.4	474.2	495.7	508.2
40°	424.1	432.2	453.6	476.9	491.2
42.5°	400.0	408.9	432.2	459.9	474.2
45°	375.8	385.6	410.7	441.1	457.2
47.5°	350.7	362.4	388.3	422.3	438.4
50°	326.6	338.2	367.7	402.6	418.8
52.5°	301.5	315.0	346.3	382.1	399.1
55°	277.4	290.8	324.8	360.6	378.5
57.5°	253.2	266.6	302.4	339.1	357.0
60°	229.1	243.4	281.0	316.7	335.5
62.5°	204.9	220.1	258.6	295.3	313.2
65°	181.6	197.7	236.2	272.0	290.8
67.5°	159.3	176.3	213.8	248.7	267.5
70°	136.9	153.9	190.6	224.6	243.4
72.5°	115.4	132.4	168.2	198.6	213.0
75°	94.0	111.8	144.1	165.5	174.5
77.5°	73.4	91.3	119.0	133.3	143.2
80°	54.6	69.8	89.5	100.2	103.8
82.5°	37.6	50.1	62.6	65.3	67.1
85°	23.3	29.5	34.0	33.1	33.1
87.5°	10.7	11.6	9.8	7.2	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)