

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: P230581

Luminaire Tested: **22CZ-LD5-24-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230581
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-LD5-24-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: 2169.0 lumens
Efficiency: N/A
Efficacy: 110.7 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

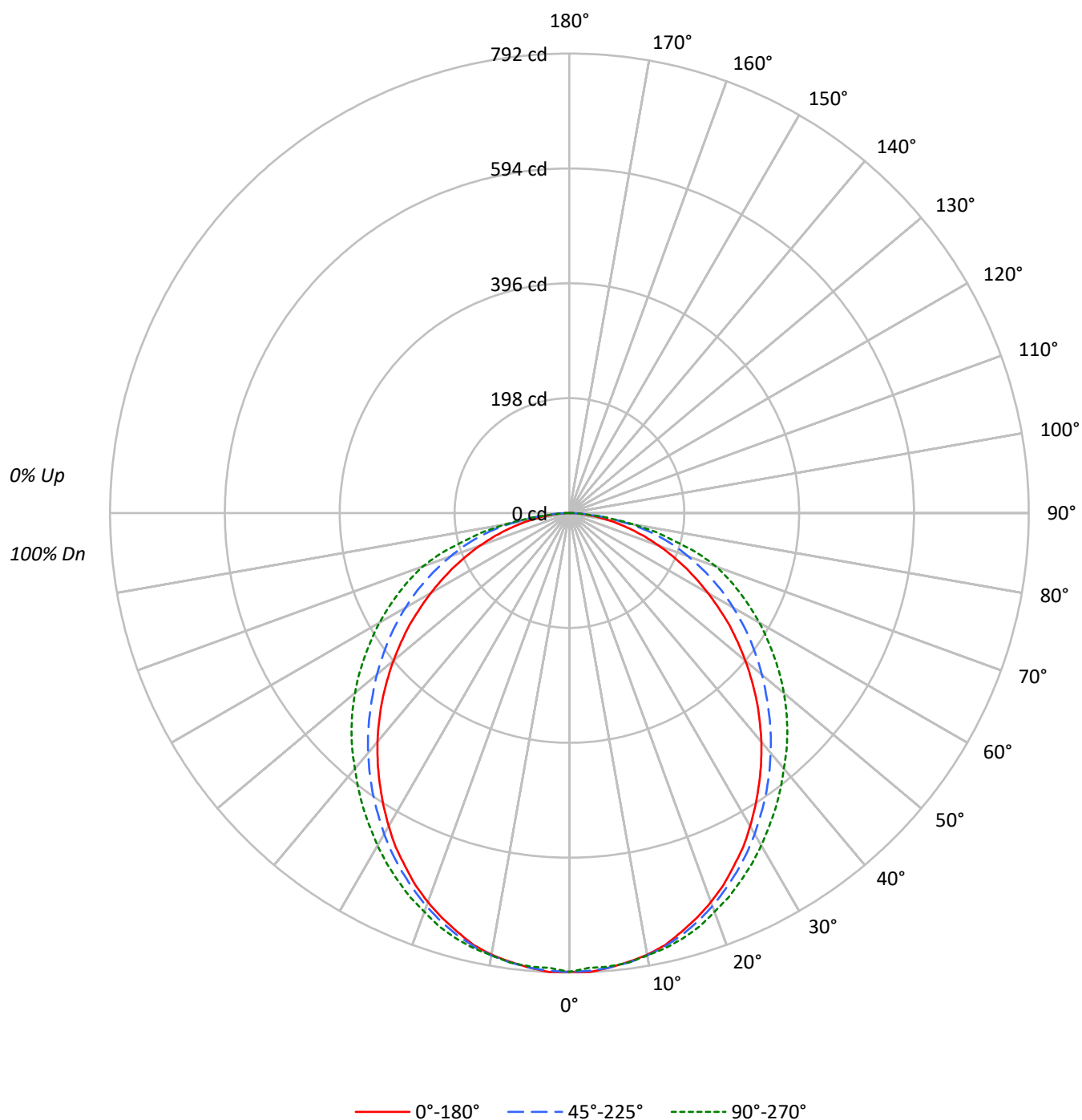
Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2128	2128	2128
5°	2125	2125	2119
10°	2112	2115	2115
15°	2081	2096	2113
20°	2044	2064	2094
25°	1992	2026	2076
30°	1936	1984	2055
35°	1872	1940	2036
40°	1808	1896	2020
45°	1737	1851	2022
50°	1657	1814	2020
55°	1579	1784	2019
60°	1486	1755	2035
65°	1393	1731	2063
70°	1287	1713	2115
75°	1159	1701	1961
80°	1017	1582	1711
85°	837	1189	1062



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.7	3.4
10°-20°	212.1	9.8
20°-30°	315.1	14.5
30°-40°	370.9	17.1
40°-50°	378.1	17.4
50°-60°	341.0	15.7
60°-70°	268.6	12.4
70°-80°	165.7	7.6
80°-90°	43.0	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°	601.8	27.7
0°-40°	972.7	44.8
0°-60°	1691.8	78.0
0°-90°	2169.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2169.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	791	791	791	791	791	
5°	787	788	787	786	784	75
15°	747	750	752	756	758	211
25°	671	675	682	694	699	309
35°	570	576	591	610	620	357
45°	456	464	486	516	531	352
55°	336	348	380	415	430	300
65°	219	234	272	306	324	217
75°	112	130	164	182	189	119
85°	27	34	38	36	34	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	790.7	790.7	790.7	790.7	790.7
2.5°	791.8	791.8	789.7	787.6	784.5
5°	786.6	787.6	786.6	785.5	784.5
7.5°	780.3	781.4	781.4	781.4	781.4
10°	773.0	774.1	774.1	774.1	774.1
12.5°	762.6	763.6	764.7	765.7	767.8
15°	747.0	750.1	752.2	756.3	758.4
17.5°	731.3	734.5	737.6	742.8	747.0
20°	713.6	715.7	720.9	727.2	731.3
22.5°	693.8	697.0	702.2	710.5	716.8
25°	670.9	675.1	682.4	693.8	699.1
27.5°	649.0	652.2	661.5	674.0	681.3
30°	623.0	627.2	638.6	654.3	661.5
32.5°	597.0	602.2	614.7	632.4	640.7
35°	569.9	576.1	590.7	609.5	619.9
37.5°	542.8	549.0	565.7	586.5	598.0
40°	514.7	520.9	539.7	562.6	575.1
42.5°	485.5	492.8	513.6	539.7	554.2
45°	456.3	463.6	486.5	515.7	531.3
47.5°	426.1	434.4	459.4	491.7	507.4
50°	395.9	405.3	433.4	466.7	482.4
52.5°	365.7	376.1	406.3	440.7	457.4
55°	336.5	348.0	380.3	414.6	430.3
57.5°	305.2	318.8	353.2	386.5	404.2
60°	276.1	290.7	326.1	359.4	378.2
62.5°	246.9	262.5	300.0	333.4	351.1
65°	218.8	234.4	271.9	306.3	324.0
67.5°	190.7	208.4	244.8	279.2	296.9
70°	163.6	182.3	217.7	251.1	268.8
72.5°	137.5	156.3	191.7	222.9	233.4
75°	111.5	130.2	163.6	182.3	188.6
77.5°	87.5	105.2	134.4	145.9	154.2
80°	65.6	81.3	102.1	109.4	110.4
82.5°	44.8	58.3	70.8	71.9	70.8
85°	27.1	34.4	38.5	36.5	34.4
87.5°	12.5	13.5	12.5	8.3	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)