

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: P230821

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230821
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25713)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-20SE-SQP-UNV-L935-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SQP LENS
Light Source: (56) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1230.0 lumens
Efficiency: N/A
Efficacy: 71.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.31 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

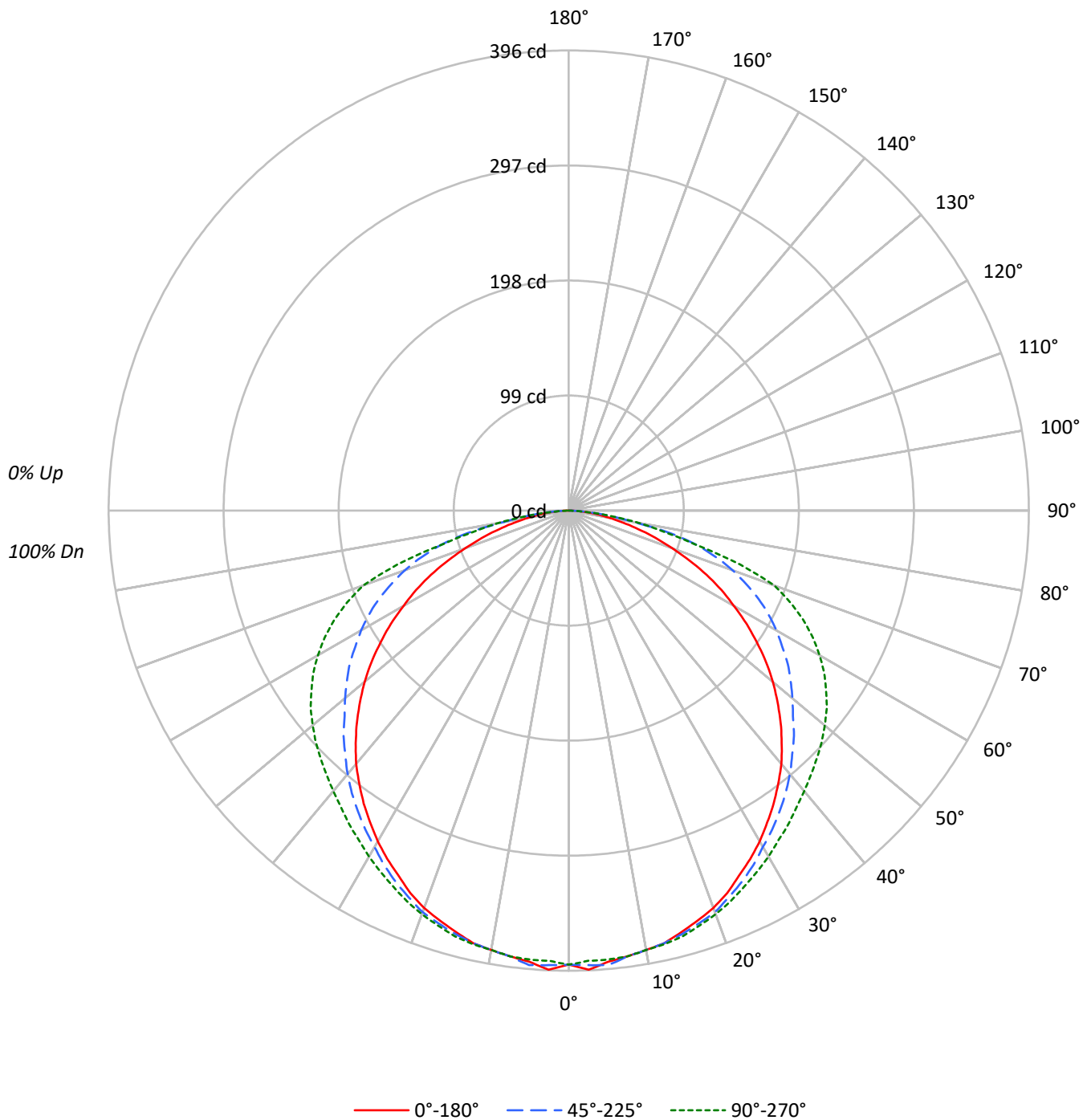
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	108	103	99	95	105	101	97	93		97	93	90		93	90	87		89	87	85
2	98	89	82	76	95	87	81	75		84	78	73		80	76	71		77	73	70
3	89	78	69	62	86	76	68	62		73	66	61		70	64	59		68	63	58
4	81	68	59	52	79	67	58	52		64	57	51		62	56	50		60	54	50
5	74	61	52	45	72	60	51	44		58	50	44		56	49	43		54	48	43
6	68	55	45	39	66	54	45	39		52	44	38		50	43	38		48	42	37
7	63	49	40	34	62	49	40	34		47	39	34		45	39	33		44	38	33
8	59	45	36	30	57	44	36	30		43	35	30		42	35	30		40	34	29
9	55	41	33	27	54	41	33	27		39	32	27		38	32	27		37	31	27
10	51	38	30	24	50	37	30	24		36	29	24		35	29	24		35	28	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1051	1051	1051
5°	1053	1061	1048
10°	1049	1049	1049
15°	1046	1051	1056
20°	1042	1053	1059
25°	1029	1047	1061
30°	1021	1039	1069
35°	1010	1039	1082
40°	1000	1040	1107
45°	981	1043	1149
50°	960	1052	1204
55°	928	1080	1268
60°	884	1110	1342
65°	833	1149	1417
70°	744	1180	1481
75°	646	1182	1172
80°	547	874	947
85°	472	590	531



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.1	3.0
10°-20°	106.5	8.7
20°-30°	162.3	13.2
30°-40°	198.6	16.1
40°-50°	213.7	17.4
50°-60°	207.0	16.8
60°-70°	175.4	14.3
70°-80°	106.0	8.6
80°-90°	23.3	1.9
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°	306.0	24.9
0°-40°	504.6	41.0
0°-60°	925.3	75.2
0°-90°	1230.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1230.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	391	391	391	391	391	
5°	390	390	393	391	388	37
15°	375	376	377	378	379	106
25°	347	349	352	355	357	160
35°	308	310	316	325	330	192
45°	258	263	274	291	302	199
55°	198	206	230	257	270	177
65°	131	145	180	209	223	129
75°	62	84	114	116	113	67
85°	15	18	19	18	17	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	390.7	390.7	390.7	390.7	390.7
2.5°	395.5	394.5	391.6	389.7	387.8
5°	389.7	389.7	392.6	390.7	387.8
7.5°	386.9	386.9	386.9	391.6	386.9
10°	384.0	384.9	384.0	387.8	384.0
12.5°	381.1	381.1	381.1	382.1	382.1
15°	375.4	376.4	377.3	378.3	379.2
17.5°	369.7	370.6	372.5	373.5	374.4
20°	363.9	364.9	367.8	367.8	369.7
22.5°	356.3	356.3	360.1	361.1	363.9
25°	346.7	348.7	352.5	355.3	357.2
27.5°	338.1	340.1	343.9	347.7	350.6
30°	328.6	330.5	334.3	340.1	343.9
32.5°	318.1	320.0	325.7	332.4	336.2
35°	307.6	309.5	316.2	324.8	329.5
37.5°	296.1	299.0	306.6	316.2	321.9
40°	284.7	287.5	296.1	306.6	315.2
42.5°	271.3	275.1	284.7	299.0	308.5
45°	257.9	262.7	274.1	291.3	301.8
47.5°	243.6	248.4	261.7	283.7	295.2
50°	229.3	235.0	251.2	275.1	287.5
52.5°	214.0	219.7	240.7	266.5	279.9
55°	197.7	206.3	230.2	257.0	270.3
57.5°	181.5	191.0	217.8	246.4	260.8
60°	164.3	175.8	206.3	235.0	249.3
62.5°	148.1	160.5	193.9	222.6	236.9
65°	130.9	145.2	180.5	209.2	222.6
67.5°	112.7	130.9	165.3	193.0	206.3
70°	94.6	115.6	150.0	175.8	188.2
72.5°	78.3	100.3	132.8	154.7	154.7
75°	62.1	84.1	113.7	115.6	112.7
77.5°	47.8	68.8	88.8	81.2	83.1
80°	35.3	52.5	56.4	59.2	61.1
82.5°	23.9	35.3	36.3	38.2	38.2
85°	15.3	18.1	19.1	18.1	17.2
87.5°	6.7	7.6	5.7	3.8	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)