

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: P230824

Luminaire Tested: **22CZ-LD5-24SE-SQP-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230824
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-LD5-24SE-SQP-UNV-L930-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SQP LENS
Light Source: (56) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1412.0 lumens
Efficiency: N/A
Efficacy: 66.9 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

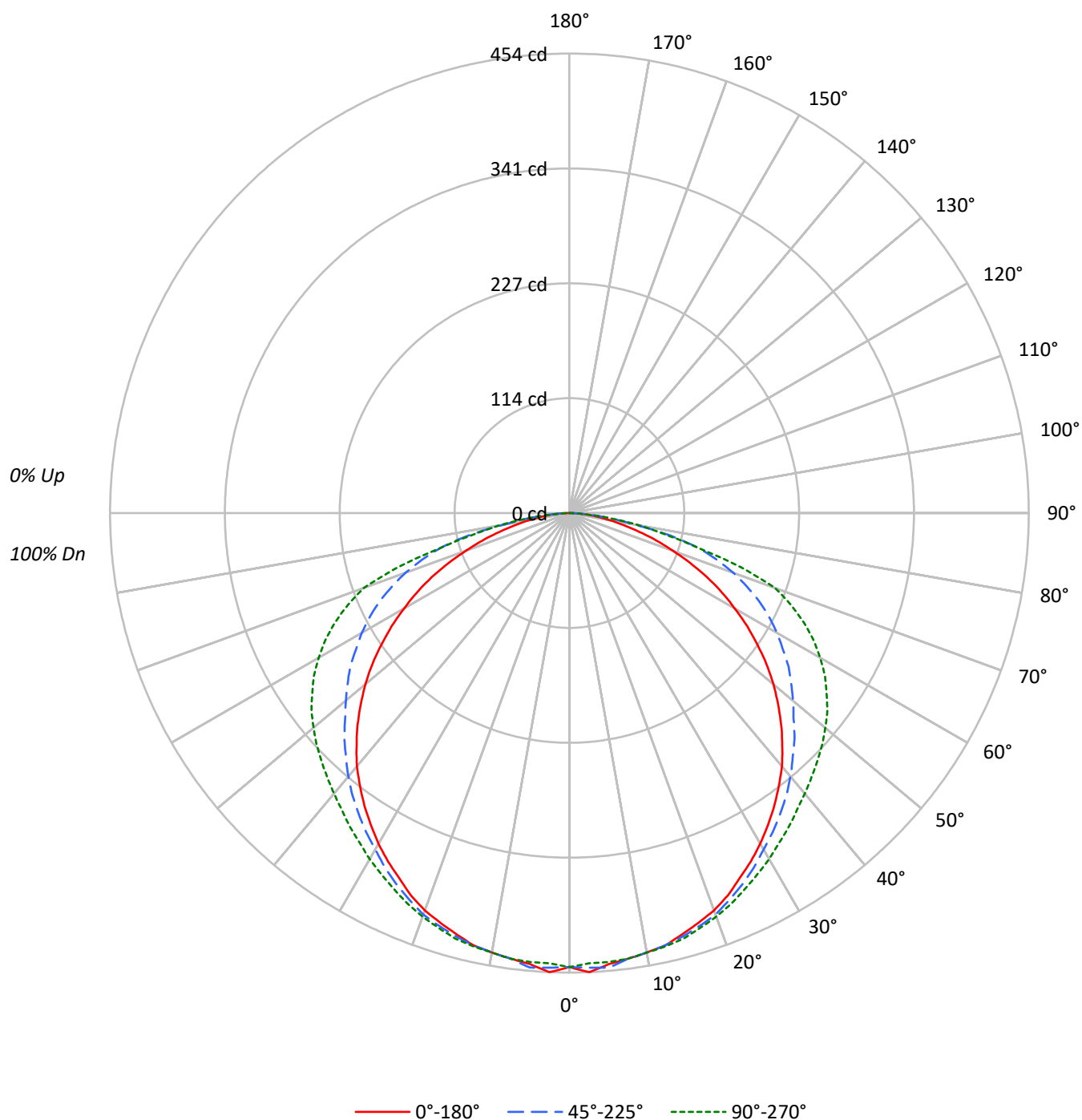
Input Watts (W): 21.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1207	1207	1207
5°	1209	1217	1203
10°	1204	1204	1204
15°	1200	1207	1213
20°	1196	1209	1215
25°	1182	1201	1218
30°	1172	1193	1227
35°	1160	1192	1243
40°	1148	1194	1271
45°	1127	1198	1319
50°	1102	1207	1382
55°	1065	1240	1456
60°	1015	1275	1540
65°	956	1319	1627
70°	854	1355	1699
75°	741	1357	1345
80°	629	1003	1088
85°	540	676	608



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.6	3.0
10°-20°	122.3	8.7
20°-30°	186.4	13.2
30°-40°	228.0	16.1
40°-50°	245.3	17.4
50°-60°	237.7	16.8
60°-70°	201.3	14.3
70°-80°	121.7	8.6
80°-90°	26.7	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°	351.2	24.9
0°-40°	579.2	41.0
0°-60°	1062.3	75.2
0°-90°	1412.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1412.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	448	448	448	448	448	
5°	447	447	451	448	445	43
15°	431	432	433	434	435	122
25°	398	400	405	408	410	184
35°	353	355	363	373	378	221
45°	296	302	315	334	346	228
55°	227	237	264	295	310	203
65°	150	167	207	240	256	148
75°	71	96	130	133	129	77
85°	18	21	22	21	20	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	448.5	448.5	448.5	448.5	448.5
2.5°	454.0	452.9	449.6	447.4	445.2
5°	447.4	447.4	450.7	448.5	445.2
7.5°	444.1	444.1	444.1	449.6	444.1
10°	440.8	441.9	440.8	445.2	440.8
12.5°	437.5	437.5	437.5	438.6	438.6
15°	430.9	432.0	433.1	434.2	435.3
17.5°	424.4	425.5	427.7	428.8	429.8
20°	417.8	418.9	422.2	422.2	424.4
22.5°	409.0	409.0	413.4	414.5	417.8
25°	398.0	400.2	404.6	407.9	410.1
27.5°	388.2	390.4	394.8	399.1	402.4
30°	377.2	379.4	383.8	390.4	394.8
32.5°	365.2	367.3	373.9	381.6	386.0
35°	353.1	355.3	363.0	372.8	378.3
37.5°	339.9	343.2	352.0	363.0	369.5
40°	326.8	330.1	339.9	352.0	361.9
42.5°	311.4	315.8	326.8	343.2	354.2
45°	296.1	301.6	314.7	334.4	346.5
47.5°	279.6	285.1	300.5	325.7	338.8
50°	263.2	269.8	288.4	315.8	330.1
52.5°	245.6	252.2	276.3	305.9	321.3
55°	227.0	236.9	264.3	295.0	310.3
57.5°	208.3	219.3	250.0	282.9	299.4
60°	188.6	201.8	236.9	269.8	286.2
62.5°	170.0	184.2	222.6	255.5	271.9
65°	150.2	166.7	207.2	240.1	255.5
67.5°	129.4	150.2	189.7	221.5	236.9
70°	108.6	132.7	172.2	201.8	216.0
72.5°	89.9	115.1	152.4	177.6	177.6
75°	71.3	96.5	130.5	132.7	129.4
77.5°	54.8	79.0	102.0	93.2	95.4
80°	40.6	60.3	64.7	68.0	70.2
82.5°	27.4	40.6	41.7	43.9	43.9
85°	17.5	20.8	21.9	20.8	19.7
87.5°	7.7	8.8	6.6	4.4	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)