

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: P230613

Luminaire Tested: **22CZ-LD5-39SE-S-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230613
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-LD5-39SE-S-UNV-L935-CD1-U
Description: CRUZE 2x2 LED TROFFER
WITH SMOOTH LENS
Light Source: (56) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3478.0 lumens
Efficiency: N/A
Efficacy: 99.7 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

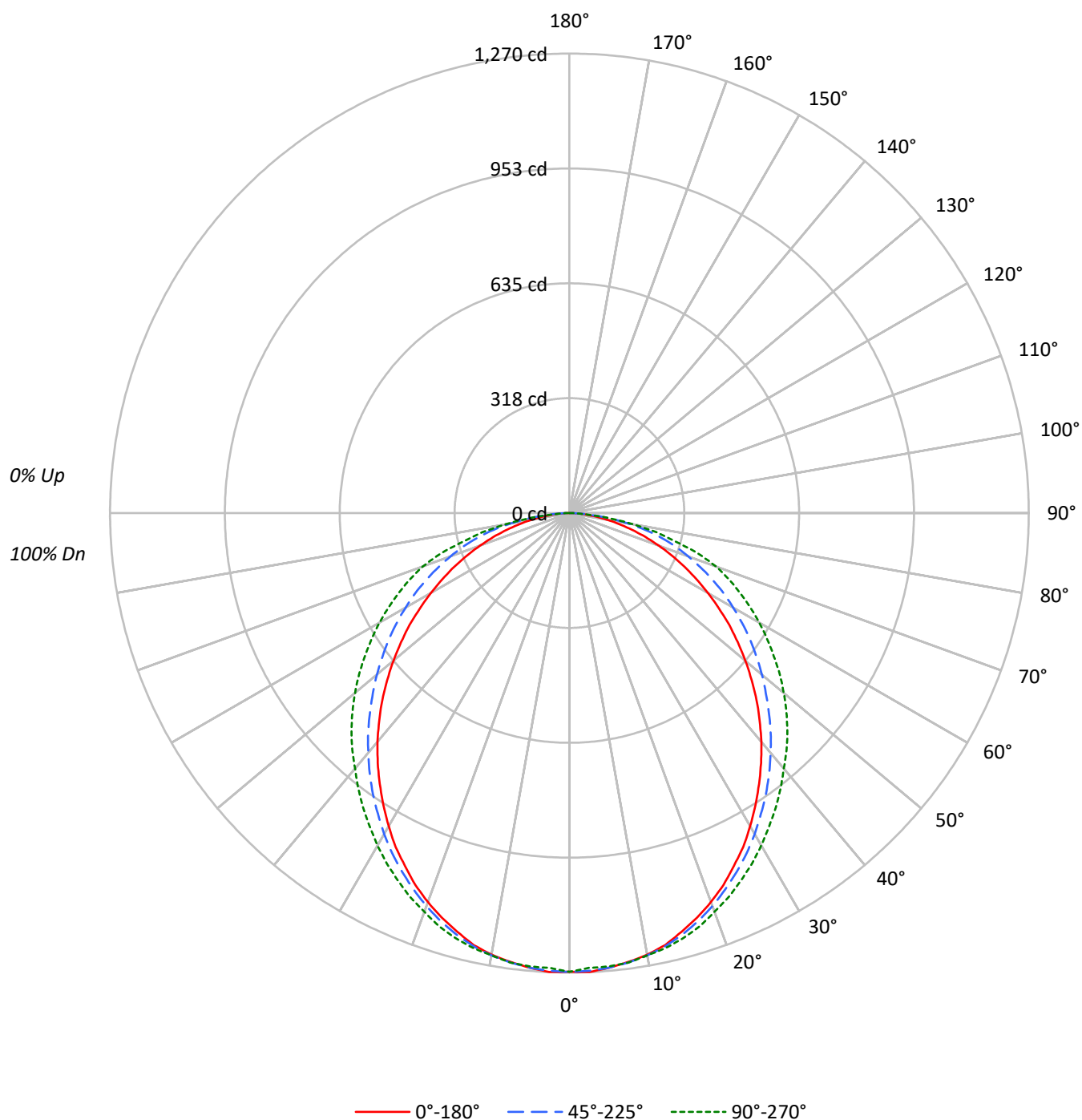
Input Watts (W): 34.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	109	104	99	95	106	101	97	94		97	94	91			93	91	88			90
2	99	90	83	77	96	88	82	77		85	79	75			81	77	73			78
3	90	79	71	64	87	78	70	64		75	68	63			72	66	62			69
4	82	70	61	54	80	69	61	54		66	59	53			64	58	53			62
5	76	63	54	47	74	62	53	47		59	52	46			57	51	46			56
6	70	56	47	41	68	56	47	41		54	46	40			52	45	40			50
7	65	51	42	36	63	50	42	36		49	41	36			47	41	36			46
8	60	47	38	32	59	46	38	32		45	37	32			43	37	32			42
9	56	43	35	29	55	42	34	29		41	34	29			40	34	29			39
10	53	40	32	26	52	39	32	26		38	31	26			37	31	26			36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3412	3412	3412
5°	3407	3407	3398
10°	3387	3392	3392
15°	3337	3360	3388
20°	3277	3310	3358
25°	3194	3249	3328
30°	3104	3182	3296
35°	3002	3112	3265
40°	2899	3040	3239
45°	2785	2969	3242
50°	2658	2909	3238
55°	2532	2860	3237
60°	2383	2814	3264
65°	2234	2776	3308
70°	2064	2747	3391
75°	1858	2727	3144
80°	1630	2537	2744
85°	1340	1908	1701



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.7	3.4
10°-20°	340.1	9.8
20°-30°	505.2	14.5
30°-40°	594.7	17.1
40°-50°	606.2	17.4
50°-60°	546.8	15.7
60°-70°	430.7	12.4
70°-80°	265.6	7.6
80°-90°	69.0	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°	965.1	27.7
0°-40°	1559.7	44.8
0°-60°	2712.7	78.0
0°-90°	3478.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3478.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1268	1268	1268	1268	1268	
5°	1261	1263	1261	1260	1258	120
15°	1198	1203	1206	1213	1216	338
25°	1076	1082	1094	1113	1121	496
35°	914	924	947	977	994	572
45°	732	743	780	827	852	564
55°	540	558	610	665	690	482
65°	351	376	436	491	520	347
75°	179	209	262	292	302	191
85°	43	55	62	58	55	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1267.9	1267.9	1267.9	1267.9	1267.9
2.5°	1269.6	1269.6	1266.3	1262.9	1257.9
5°	1261.3	1262.9	1261.3	1259.6	1257.9
7.5°	1251.2	1252.9	1252.9	1252.9	1252.9
10°	1239.5	1241.2	1241.2	1241.2	1241.2
12.5°	1222.8	1224.5	1226.2	1227.8	1231.2
15°	1197.8	1202.8	1206.1	1212.8	1216.2
17.5°	1172.7	1177.7	1182.7	1191.1	1197.8
20°	1144.3	1147.7	1156.0	1166.0	1172.7
22.5°	1112.6	1117.6	1125.9	1139.3	1149.3
25°	1075.8	1082.5	1094.2	1112.6	1120.9
27.5°	1040.7	1045.8	1060.8	1080.8	1092.5
30°	999.0	1005.7	1024.0	1049.1	1060.8
32.5°	957.2	965.6	985.6	1014.0	1027.4
35°	913.8	923.8	947.2	977.3	994.0
37.5°	870.3	880.4	907.1	940.5	958.9
40°	825.2	835.3	865.3	902.1	922.1
42.5°	778.5	790.2	823.6	865.3	888.7
45°	731.7	743.4	780.1	826.9	852.0
47.5°	683.2	696.6	736.7	788.5	813.6
50°	634.8	649.8	694.9	748.4	773.5
52.5°	586.4	603.1	651.5	706.6	733.4
55°	539.6	558.0	609.7	664.9	689.9
57.5°	489.5	511.2	566.3	619.8	648.2
60°	442.7	466.1	522.9	576.3	606.4
62.5°	395.9	421.0	481.1	534.6	563.0
65°	350.8	375.9	436.0	491.1	519.5
67.5°	305.7	334.1	392.6	447.7	476.1
70°	262.3	292.3	349.1	402.6	431.0
72.5°	220.5	250.6	307.4	357.5	374.2
75°	178.7	208.8	262.3	292.3	302.4
77.5°	140.3	168.7	215.5	233.9	247.2
80°	105.2	130.3	163.7	175.4	177.1
82.5°	71.8	93.6	113.6	115.3	113.6
85°	43.4	55.1	61.8	58.5	55.1
87.5°	20.0	21.7	20.0	13.4	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)