

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: P474908

Luminaire Tested: **22CZ2-32-S-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474908
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-32-S-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

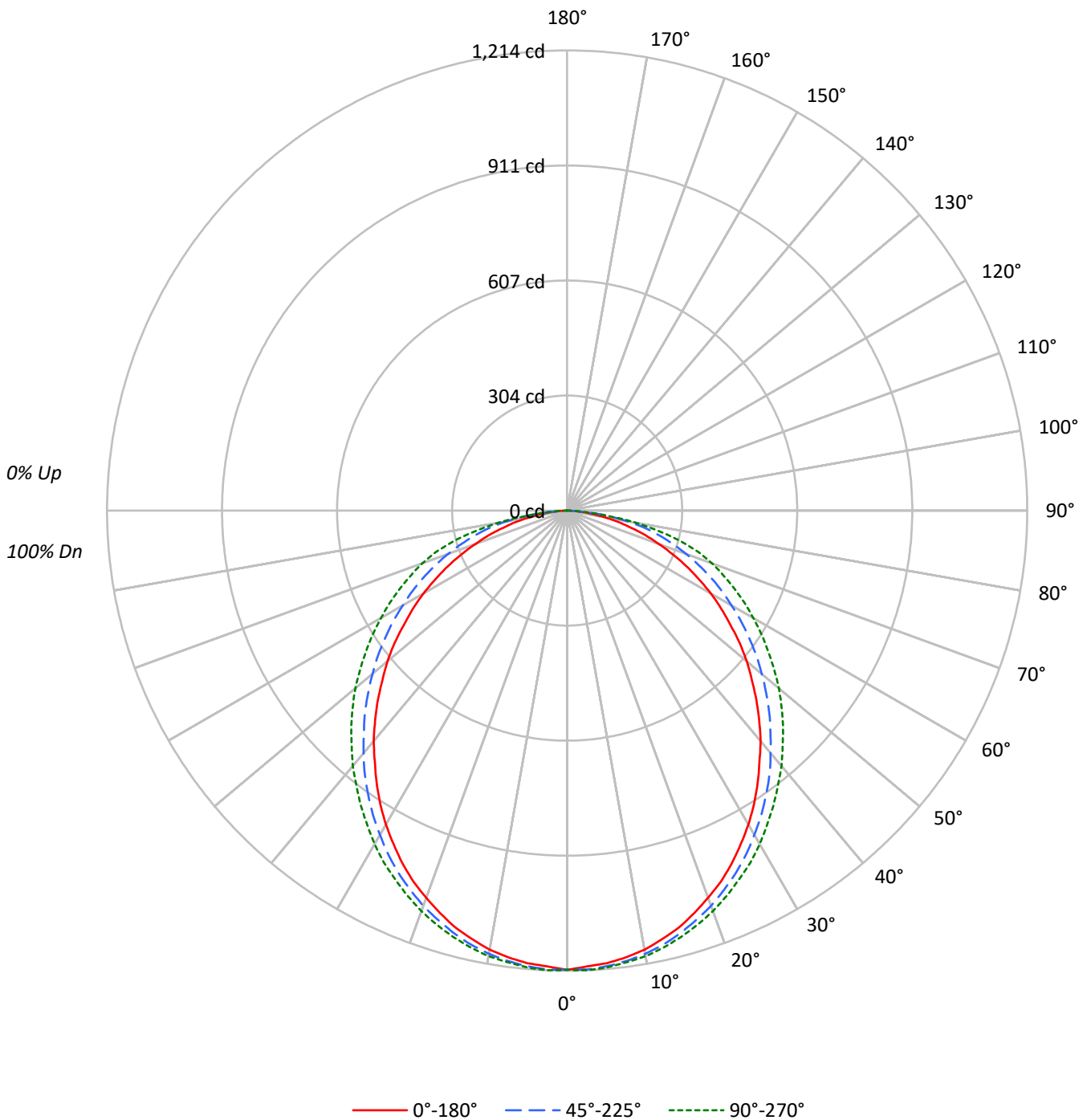
Lumens per Lamp: N/A
Luminaire Lumens: 3337.7 lumens
Efficiency: N/A
Efficacy: 137.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 24.2
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	0		
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
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	88	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	61		69	64	60	58
4	82	70	61	54	80	69	60	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	55	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	33	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°	3260	3260	3260
5°	3238	3260	3268
10°	3213	3244	3262
15°	3173	3215	3243
20°	3113	3178	3220
25°	3051	3130	3187
30°	2971	3069	3157
35°	2879	3006	3118
40°	2789	2934	3090
45°	2686	2871	3065
50°	2590	2807	3054
55°	2467	2751	3039
60°	2356	2695	3052
65°	2211	2664	3096
70°	2021	2631	3197
75°	1814	2612	3199
80°	1526	2466	2841
85°	1149	1670	1547



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.4	3.4
10°-20°	325.0	9.7
20°-30°	484.5	14.5
30°-40°	571.7	17.1
40°-50°	582.5	17.5
50°-60°	525.3	15.7
60°-70°	412.6	12.4
70°-80°	257.9	7.7
80°-90°	63.6	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°	924.0	27.7
0°-40°	1495.7	44.8
0°-60°	2603.6	78.0
0°-90°	3337.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3337.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1212	1212	1212	1212	1212	
5°	1199	1201	1207	1209	1210	114
15°	1139	1143	1154	1162	1164	321
25°	1027	1033	1054	1069	1073	473
35°	876	888	915	940	949	548
45°	706	718	754	791	805	545
55°	526	543	586	632	648	472
65°	347	366	418	465	486	343
75°	174	199	251	294	308	187
85°	37	48	54	53	50	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1211.6	1211.6	1211.6	1211.6	1211.6
2.5°	1203.5	1205.9	1211.6	1214.0	1214.0
5°	1198.6	1201.1	1206.7	1209.1	1209.9
7.5°	1188.9	1192.2	1198.6	1201.9	1201.9
10°	1176.0	1180.1	1187.3	1192.2	1193.8
12.5°	1158.2	1163.1	1172.8	1178.4	1180.1
15°	1138.9	1142.9	1154.2	1162.3	1163.9
17.5°	1113.8	1120.3	1132.4	1142.9	1145.3
20°	1087.2	1094.4	1109.8	1121.9	1124.3
22.5°	1059.7	1065.4	1082.3	1096.9	1100.1
25°	1027.4	1033.1	1054.1	1069.4	1073.4
27.5°	991.9	1001.6	1022.6	1040.3	1046.8
30°	956.3	966.0	987.8	1008.8	1016.1
32.5°	917.6	928.1	953.1	974.9	982.2
35°	876.4	888.5	915.1	940.2	949.1
37.5°	833.6	847.3	877.2	903.8	913.5
40°	794.0	803.7	835.2	865.9	879.6
42.5°	749.6	762.5	794.0	828.7	841.6
45°	705.9	718.1	754.4	790.7	805.3
47.5°	660.7	676.0	712.4	752.8	767.3
50°	618.7	631.6	670.4	713.2	729.4
52.5°	573.5	587.2	629.2	673.6	688.2
55°	525.8	542.8	586.4	631.6	647.8
57.5°	482.2	498.4	544.4	591.2	608.2
60°	437.8	453.9	500.8	548.4	567.0
62.5°	390.9	409.5	460.4	506.4	527.4
65°	347.3	365.9	418.4	465.2	486.2
67.5°	301.3	323.1	375.6	424.9	445.9
70°	256.9	282.7	334.4	382.9	406.3
72.5°	217.3	238.3	292.4	343.3	362.7
75°	174.5	198.7	251.2	294.0	307.7
77.5°	138.1	159.1	209.2	237.5	246.4
80°	98.5	122.0	159.1	176.1	183.3
82.5°	65.4	84.8	108.2	111.5	109.8
85°	37.2	47.7	54.1	53.3	50.1
87.5°	14.5	16.2	12.1	7.3	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)