

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: P475257

Luminaire Tested: **22CZ2-39-SQR-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475257
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39-SQR-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

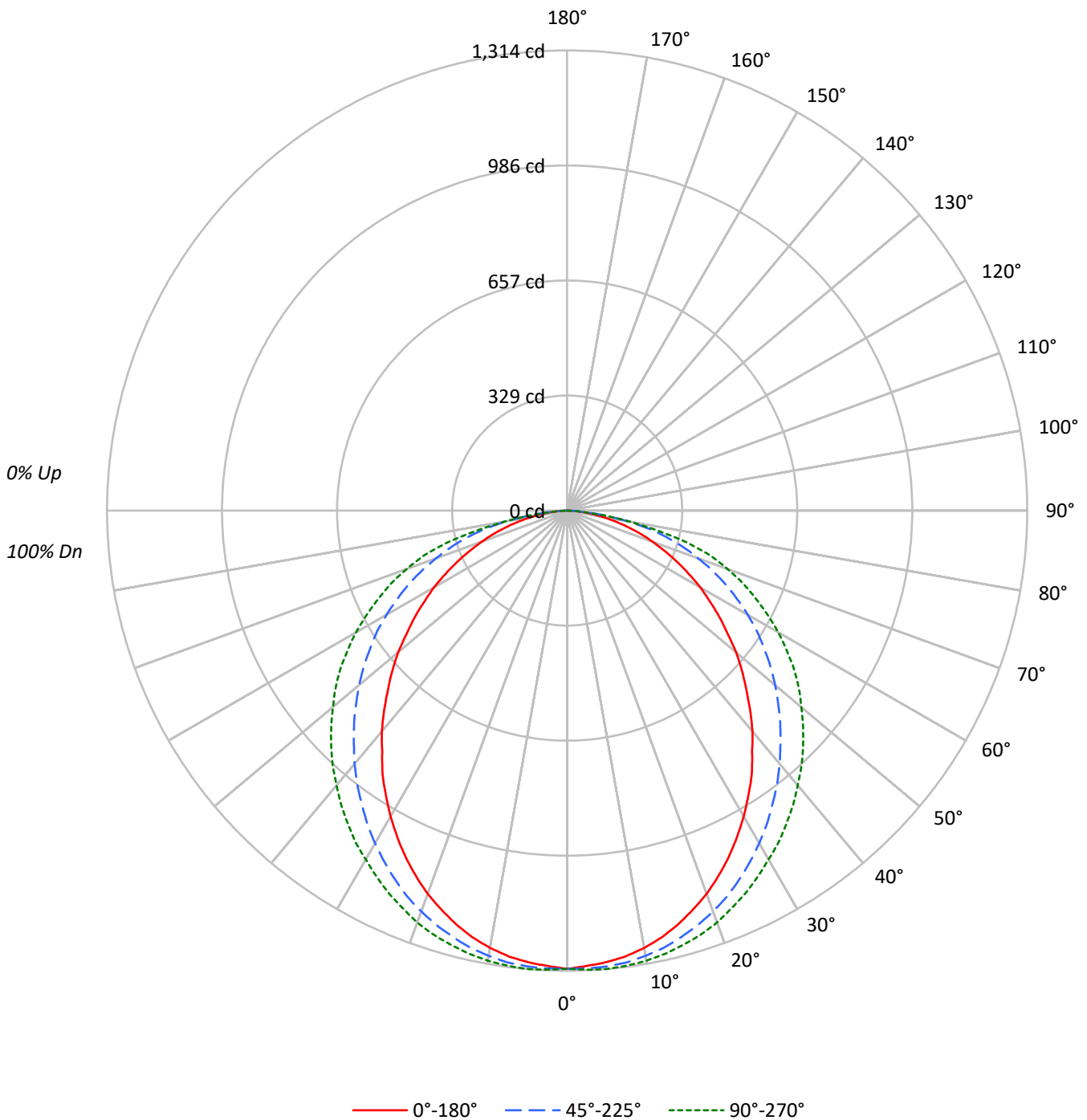
Lumens per Lamp: N/A
Luminaire Lumens: 3746.0 lumens
Efficiency: N/A
Efficacy: 127.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 29.3
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	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3521	3521	3521
5°	3496	3530	3549
10°	3464	3527	3566
15°	3408	3512	3576
20°	3335	3488	3584
25°	3241	3452	3579
30°	3132	3409	3574
35°	3019	3358	3586
40°	2891	3316	3598
45°	2754	3275	3627
50°	2635	3245	3654
55°	2494	3219	3712
60°	2363	3206	3751
65°	2207	3181	3780
70°	2028	3133	3832
75°	1831	3049	3696
80°	1570	2701	2783
85°	1263	1590	1263



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.1	3.3
10°-20°	354.7	9.5
20°-30°	532.7	14.2
30°-40°	635.3	17.0
40°-50°	656.9	17.5
50°-60°	603.9	16.1
60°-70°	480.8	12.8
70°-80°	293.7	7.8
80°-90°	63.8	1.7
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°	1011.5	27.0
0°-40°	1646.8	44.0
0°-60°	2907.6	77.6
0°-90°	3746.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3746.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1308	1308	1308	1308	1308	
5°	1294	1298	1307	1312	1314	123
15°	1223	1238	1260	1278	1284	344
25°	1092	1118	1163	1195	1205	502
35°	919	958	1022	1076	1092	573
45°	724	775	860	930	953	560
55°	532	590	686	764	791	475
65°	347	406	500	569	594	343
75°	176	228	293	345	356	188
85°	41	50	52	44	41	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1308.5	1308.5	1308.5	1308.5	1308.5
2.5°	1301.4	1303.2	1308.5	1312.2	1312.2
5°	1294.3	1297.9	1306.7	1312.2	1314.0
7.5°	1283.7	1289.0	1301.4	1308.5	1310.5
10°	1267.8	1274.8	1290.8	1301.4	1304.9
12.5°	1248.1	1258.7	1278.4	1292.6	1296.1
15°	1223.3	1237.5	1260.5	1278.4	1283.7
17.5°	1194.8	1212.5	1241.0	1262.5	1269.5
20°	1164.5	1182.4	1218.0	1242.8	1251.6
22.5°	1129.1	1152.1	1193.0	1221.5	1228.6
25°	1091.7	1118.2	1162.7	1194.8	1205.4
27.5°	1050.8	1082.8	1130.8	1170.0	1178.8
30°	1008.1	1041.9	1097.0	1139.7	1150.3
32.5°	963.6	1002.8	1061.4	1109.4	1123.8
35°	919.1	958.3	1022.2	1075.8	1091.7
37.5°	867.6	913.8	985.1	1040.1	1059.6
40°	823.1	867.6	944.1	1004.5	1024.2
42.5°	773.4	821.4	901.4	967.2	990.4
45°	723.6	775.1	860.5	930.0	953.0
47.5°	677.4	728.9	817.8	890.8	913.8
50°	629.4	682.7	775.1	849.9	872.9
52.5°	577.8	636.4	732.4	807.2	834.0
55°	531.6	590.2	686.2	764.5	791.3
57.5°	483.6	544.0	643.7	718.3	743.3
60°	439.1	497.7	595.7	668.5	697.0
62.5°	391.1	451.5	547.5	618.7	645.5
65°	346.6	405.5	499.5	569.0	593.7
67.5°	302.2	361.0	449.7	515.6	544.0
70°	257.7	316.5	398.2	462.3	487.1
72.5°	218.8	270.3	348.4	407.2	430.3
75°	176.1	227.6	293.3	344.9	355.5
77.5°	136.9	183.2	238.2	261.3	265.0
80°	101.3	136.9	174.3	179.6	179.6
82.5°	67.5	94.2	108.4	110.2	108.4
85°	40.9	49.8	51.5	44.5	40.9
87.5°	14.2	14.2	8.9	5.3	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)