

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: P474615

Luminaire Tested: **24CZ2-50-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474615
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50-SQR-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

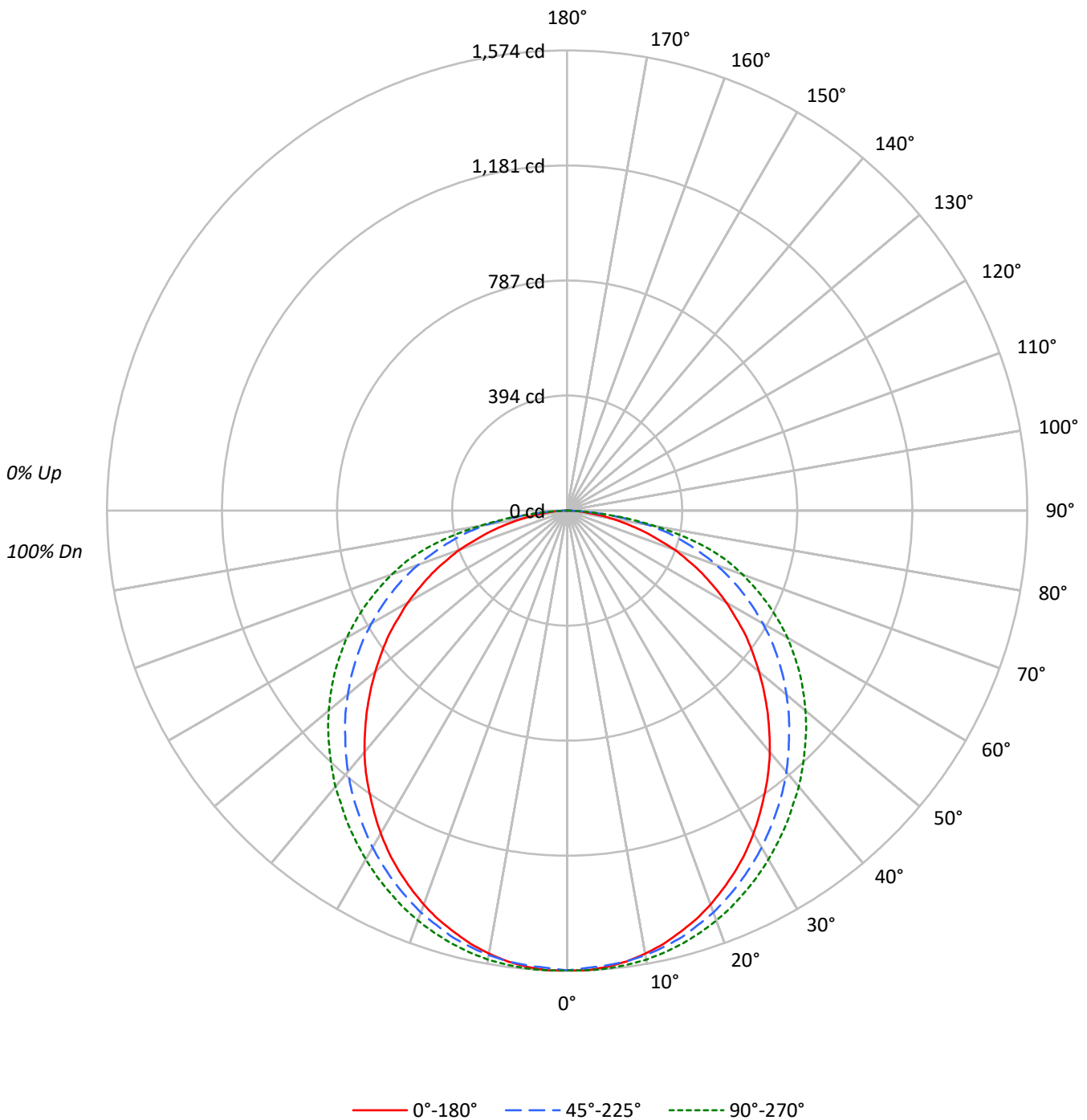
Lumens per Lamp: N/A
Luminaire Lumens: 4787.3 lumens
Efficiency: N/A
Efficacy: 120.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 39.8
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	108	103	98	94	105	101	96	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	81	75	84	78	73		80	76	71		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	69	59	53	79	67	59	52	65	57	51		62	56	51		60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39		50	43	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27		39	32	27		38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4232	4232	4232
5°	4231	4219	4248
10°	4205	4220	4261
15°	4159	4210	4268
20°	4107	4190	4273
25°	4040	4160	4274
30°	3962	4135	4280
35°	3872	4111	4297
40°	3788	4097	4331
45°	3685	4086	4378
50°	3586	4099	4457
55°	3502	4127	4557
60°	3384	4158	4684
65°	3248	4208	4826
70°	3081	4267	5019
75°	2759	4326	5185
80°	2323	4338	4705
85°	1723	3282	3094



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.0	3.1
10°-20°	427.1	8.9
20°-30°	646.5	13.5
30°-40°	782.1	16.3
40°-50°	825.5	17.2
50°-60°	778.5	16.3
60°-70°	641.8	13.4
70°-80°	421.0	8.8
80°-90°	115.8	2.4
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°	1222.6	25.5
0°-40°	2004.7	41.9
0°-60°	3608.7	75.4
0°-90°	4787.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4787.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1572	1572	1572	1572	1572	
5°	1566	1566	1562	1572	1572	149
15°	1493	1501	1511	1529	1532	421
25°	1361	1378	1401	1430	1439	627
35°	1179	1209	1251	1294	1308	738
45°	968	1012	1074	1131	1150	747
55°	746	799	880	945	971	665
65°	510	571	661	731	758	504
75°	265	334	416	482	499	280
85°	56	96	106	103	100	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1572.5	1572.5	1572.5	1572.5	1572.5
2.5°	1574.0	1572.5	1565.6	1574.8	1574.0
5°	1566.4	1566.4	1561.8	1572.5	1572.5
7.5°	1555.7	1556.4	1554.9	1567.1	1567.1
10°	1538.8	1541.9	1544.2	1558.0	1559.5
12.5°	1518.9	1524.3	1528.9	1545.7	1547.2
15°	1492.9	1501.4	1511.3	1528.9	1531.9
17.5°	1466.2	1476.1	1486.8	1509.8	1513.6
20°	1434.0	1445.5	1463.1	1486.1	1492.2
22.5°	1398.1	1414.2	1432.5	1460.1	1467.7
25°	1360.6	1377.5	1401.2	1430.2	1439.4
27.5°	1320.1	1340.0	1366.7	1400.4	1410.3
30°	1275.0	1297.9	1330.8	1366.7	1377.5
32.5°	1227.5	1254.3	1291.0	1330.8	1343.0
35°	1178.6	1209.2	1251.3	1294.1	1307.9
37.5°	1130.4	1161.0	1210.7	1255.8	1268.8
40°	1078.4	1112.1	1166.4	1214.5	1232.9
42.5°	1023.3	1063.1	1120.5	1174.0	1191.6
45°	968.3	1011.9	1073.8	1131.2	1150.3
47.5°	912.4	960.6	1028.7	1086.8	1109.0
50°	856.6	907.8	979.0	1041.7	1064.6
52.5°	800.0	853.5	930.8	997.3	1018.0
55°	746.5	799.2	879.6	945.3	971.3
57.5°	684.5	744.2	829.1	895.6	920.9
60°	628.7	686.8	772.5	842.8	870.4
62.5°	568.3	627.9	718.2	788.5	815.3
65°	510.1	571.3	660.8	731.2	757.9
67.5°	447.4	511.7	603.4	671.5	697.5
70°	391.6	452.0	542.3	611.9	637.9
72.5°	323.5	392.4	478.8	547.6	575.9
75°	265.4	333.5	416.1	481.8	498.7
77.5°	204.2	272.3	354.1	396.9	408.4
80°	149.9	214.2	279.9	302.9	303.6
82.5°	101.0	157.6	195.0	206.5	205.0
85°	55.8	96.4	106.3	103.3	100.2
87.5°	22.9	32.1	26.0	18.4	14.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)