

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: P474623

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

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474623  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-50HE-SQR-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4906.1 lumens  
Efficiency: N/A  
Efficacy: 127.1 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

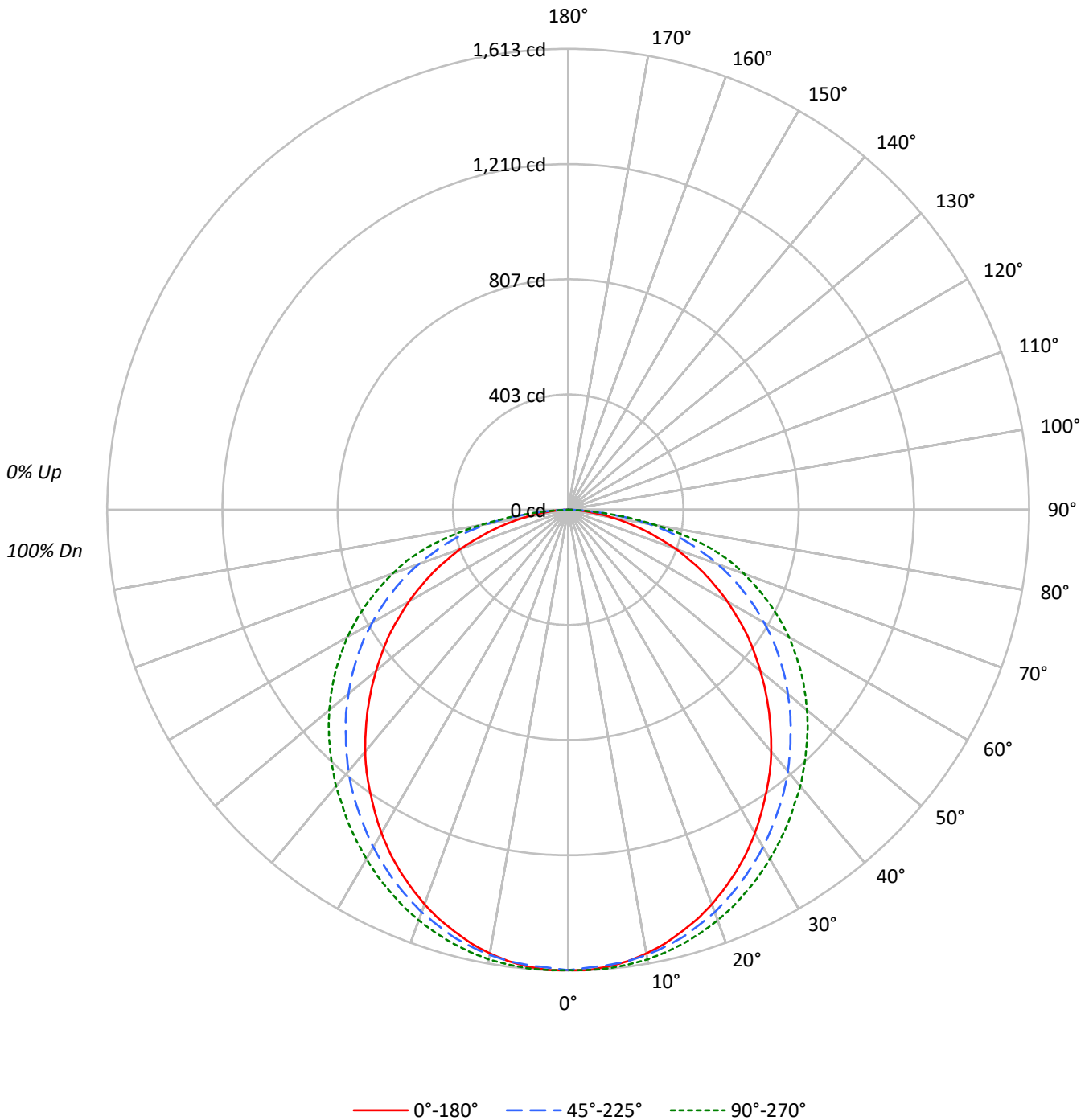
Input Watts (W): 38.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4337	4337	4337
5°	4336	4323	4353
10°	4309	4324	4367
15°	4262	4315	4374
20°	4208	4294	4379
25°	4140	4263	4380
30°	4060	4238	4386
35°	3968	4212	4403
40°	3882	4199	4438
45°	3776	4188	4486
50°	3675	4200	4567
55°	3589	4229	4670
60°	3468	4260	4801
65°	3329	4312	4946
70°	3157	4372	5143
75°	2828	4433	5313
80°	2380	4446	4823
85°	1766	3362	3171



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.7	3.1
10°-20°	437.7	8.9
20°-30°	662.5	13.5
30°-40°	801.5	16.3
40°-50°	846.0	17.2
50°-60°	797.8	16.3
60°-70°	657.7	13.4
70°-80°	431.5	8.8
80°-90°	118.6	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°	1252.9	25.5
0°-40°	2054.4	41.9
0°-60°	3698.2	75.4
0°-90°	4906.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4906.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1612	1612	1612	1612	1612	
5°	1605	1605	1600	1612	1612	152
15°	1530	1539	1549	1567	1570	432
25°	1394	1412	1436	1466	1475	642
35°	1208	1239	1282	1326	1340	756
45°	992	1037	1100	1159	1179	766
55°	765	819	901	969	995	682
65°	523	586	677	749	777	516
75°	272	342	426	494	511	287
85°	57	99	109	106	103	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1611.5	1611.5	1611.5	1611.5	1611.5
2.5°	1613.1	1611.5	1604.4	1613.8	1613.1
5°	1605.2	1605.2	1600.5	1611.5	1611.5
7.5°	1594.2	1595.0	1593.5	1606.0	1606.0
10°	1577.0	1580.1	1582.5	1596.6	1598.2
12.5°	1556.6	1562.1	1566.8	1584.1	1585.6
15°	1530.0	1538.6	1548.8	1566.8	1570.0
17.5°	1502.5	1512.7	1523.7	1547.2	1551.1
20°	1469.6	1481.4	1499.4	1522.9	1529.2
22.5°	1432.8	1449.2	1468.1	1496.3	1504.1
25°	1394.4	1411.6	1435.9	1465.7	1475.1
27.5°	1352.8	1373.2	1400.6	1435.1	1445.3
30°	1306.6	1330.1	1363.8	1400.6	1411.6
32.5°	1258.0	1285.4	1323.1	1363.8	1376.4
35°	1207.8	1239.2	1282.3	1326.2	1340.3
37.5°	1158.5	1189.8	1240.8	1287.0	1300.3
40°	1105.2	1139.6	1195.3	1244.7	1263.5
42.5°	1048.7	1089.5	1148.3	1203.1	1221.2
45°	992.3	1037.0	1100.5	1159.2	1178.8
47.5°	935.1	984.5	1054.2	1113.8	1136.5
50°	877.9	930.4	1003.3	1067.5	1091.0
52.5°	819.9	874.7	953.9	1022.1	1043.2
55°	765.0	819.1	901.4	968.8	995.4
57.5°	701.5	762.6	849.6	917.8	943.7
60°	644.3	703.9	791.6	863.7	892.0
62.5°	582.4	643.5	736.0	808.1	835.5
65°	522.8	585.5	677.2	749.3	776.7
67.5°	458.5	524.4	618.4	688.2	714.8
70°	401.3	463.2	555.7	627.0	653.7
72.5°	331.5	402.1	490.7	561.2	590.2
75°	272.0	341.7	426.4	493.8	511.0
77.5°	209.3	279.0	362.9	406.8	418.5
80°	153.6	219.5	286.9	310.4	311.2
82.5°	103.5	161.5	199.9	211.6	210.1
85°	57.2	98.8	108.9	105.8	102.7
87.5°	23.5	32.9	26.6	18.8	14.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)