

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: P474673

Luminaire Tested: **24CZ2-50HE-SQR-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474673
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-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4999.3 lumens
Efficiency: N/A
Efficacy: 129.5 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

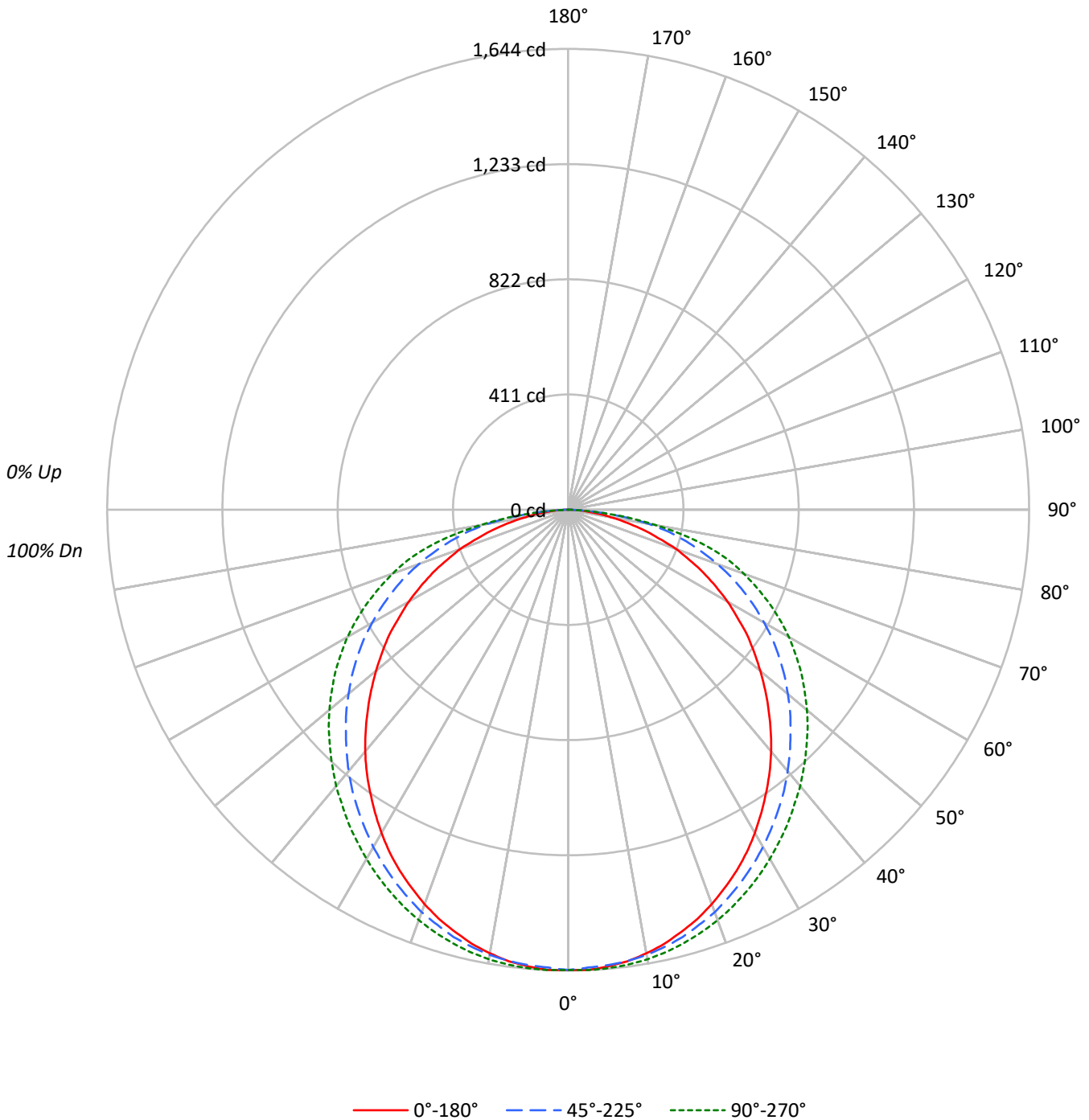
Input Watts (W): 38.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4419	4419	4419
5°	4418	4405	4436
10°	4391	4406	4450
15°	4343	4397	4457
20°	4288	4375	4462
25°	4219	4344	4463
30°	4137	4318	4470
35°	4043	4293	4487
40°	3956	4279	4523
45°	3848	4268	4571
50°	3745	4280	4654
55°	3657	4309	4759
60°	3533	4342	4892
65°	3392	4394	5040
70°	3217	4456	5241
75°	2881	4518	5414
80°	2425	4530	4914
85°	1800	3427	3230



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.6	3.1
10°-20°	446.0	8.9
20°-30°	675.1	13.5
30°-40°	816.7	16.3
40°-50°	862.1	17.2
50°-60°	813.0	16.3
60°-70°	670.2	13.4
70°-80°	439.7	8.8
80°-90°	120.9	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°	1276.7	25.5
0°-40°	2093.4	41.9
0°-60°	3768.5	75.4
0°-90°	4999.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4999.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1642	1642	1642	1642	1642	
5°	1636	1636	1631	1642	1642	155
15°	1559	1568	1578	1597	1600	440
25°	1421	1438	1463	1494	1503	654
35°	1231	1263	1307	1351	1366	770
45°	1011	1057	1121	1181	1201	780
55°	780	835	918	987	1014	694
65°	533	597	690	764	792	526
75°	277	348	434	503	521	293
85°	58	101	111	108	105	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1642.1	1642.1	1642.1	1642.1	1642.1
2.5°	1643.7	1642.1	1634.9	1644.5	1643.7
5°	1635.7	1635.7	1630.9	1642.1	1642.1
7.5°	1624.5	1625.3	1623.7	1636.5	1636.5
10°	1607.0	1610.2	1612.6	1626.9	1628.5
12.5°	1586.2	1591.8	1596.6	1614.2	1615.8
15°	1559.0	1567.8	1578.2	1596.6	1599.8
17.5°	1531.1	1541.5	1552.7	1576.6	1580.6
20°	1497.5	1509.5	1527.9	1551.9	1558.2
22.5°	1460.0	1476.8	1495.9	1524.7	1532.7
25°	1420.9	1438.4	1463.2	1493.6	1503.1
27.5°	1378.5	1399.3	1427.3	1462.4	1472.8
30°	1331.4	1355.4	1389.7	1427.3	1438.4
32.5°	1281.9	1309.9	1348.2	1389.7	1402.5
35°	1230.8	1262.7	1306.7	1351.4	1365.8
37.5°	1180.5	1212.4	1264.3	1311.5	1325.0
40°	1126.2	1161.3	1218.0	1268.3	1287.5
42.5°	1068.6	1110.2	1170.1	1226.0	1244.4
45°	1011.1	1056.7	1121.4	1181.3	1201.2
47.5°	952.8	1003.2	1074.2	1134.9	1158.1
50°	894.5	948.0	1022.3	1087.8	1111.8
52.5°	835.4	891.3	972.0	1041.5	1063.1
55°	779.5	834.6	918.5	987.2	1014.3
57.5°	714.8	777.1	865.8	935.3	961.6
60°	656.5	717.2	806.7	880.2	908.9
62.5°	593.4	655.7	750.0	823.5	851.4
65°	532.7	596.6	690.1	763.5	791.5
67.5°	467.2	534.3	630.2	701.3	728.4
70°	408.9	472.0	566.3	639.0	666.1
72.5°	337.8	409.7	500.0	571.9	601.4
75°	277.1	348.2	434.5	503.2	520.7
77.5°	213.3	284.3	369.8	414.5	426.5
80°	156.5	223.6	292.3	316.3	317.1
82.5°	105.4	164.5	203.7	215.6	214.0
85°	58.3	100.6	111.0	107.8	104.6
87.5°	24.0	33.5	27.2	19.2	15.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)