

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: P474666

Luminaire Tested: **24CZ2-55-SQR-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474666
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55-SQR-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

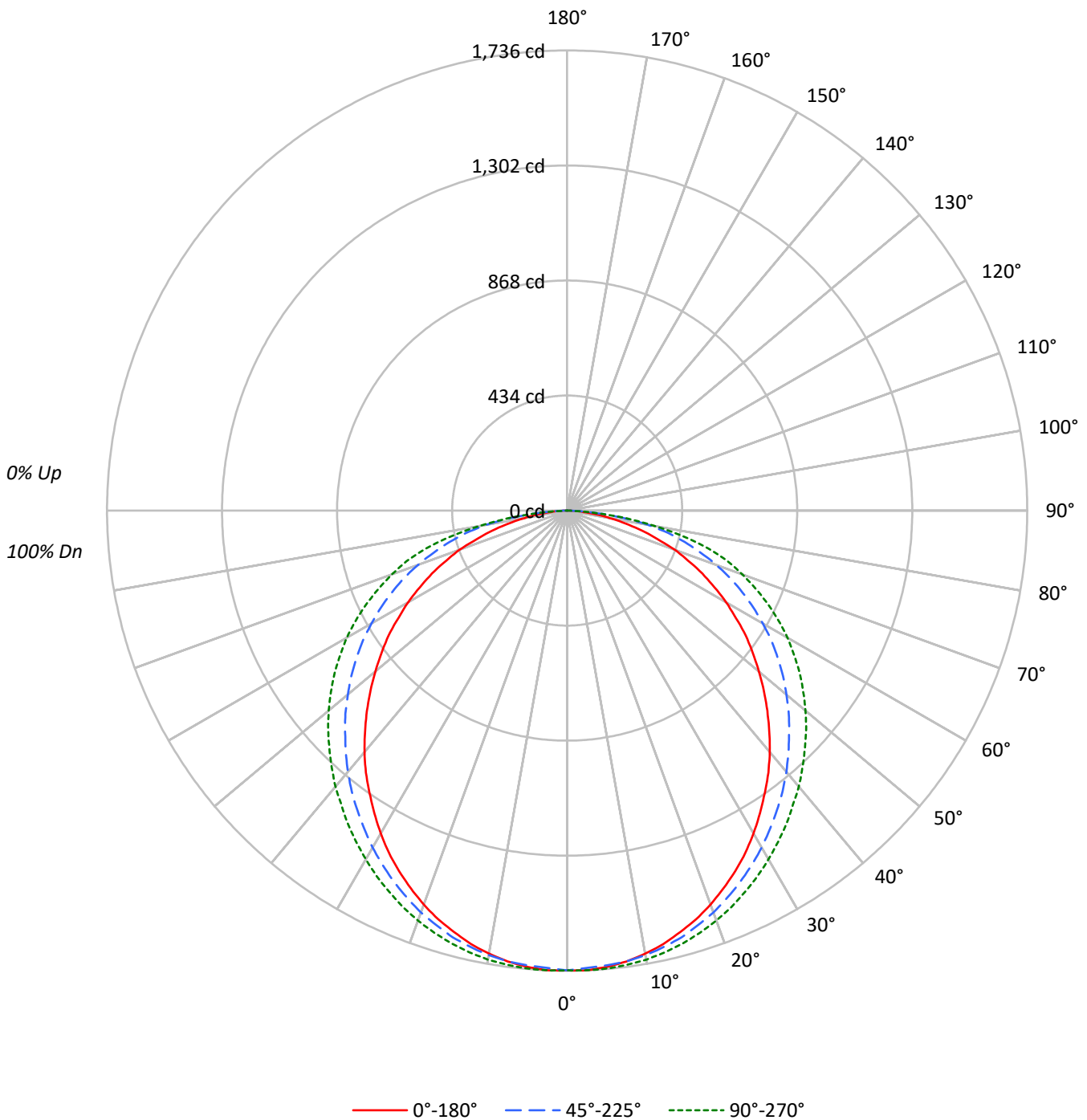
Lumens per Lamp: N/A
Luminaire Lumens: 5280.0 lumens
Efficiency: N/A
Efficacy: 122.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43
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°	4667	4667	4667
5°	4667	4653	4685
10°	4638	4654	4700
15°	4587	4644	4707
20°	4529	4621	4713
25°	4456	4589	4714
30°	4369	4561	4721
35°	4270	4533	4739
40°	4178	4519	4777
45°	4064	4507	4828
50°	3955	4520	4916
55°	3863	4551	5026
60°	3732	4585	5167
65°	3582	4641	5323
70°	3398	4706	5535
75°	3043	4771	5718
80°	2562	4784	5190
85°	1902	3622	3412



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.4	3.1
10°-20°	471.0	8.9
20°-30°	713.0	13.5
30°-40°	862.6	16.3
40°-50°	910.5	17.2
50°-60°	858.6	16.3
60°-70°	707.9	13.4
70°-80°	464.4	8.8
80°-90°	127.7	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°	1348.4	25.5
0°-40°	2211.0	41.9
0°-60°	3980.1	75.4
0°-90°	5280.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5280.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1734	1734	1734	1734	1734	
5°	1728	1728	1722	1734	1734	164
15°	1647	1656	1667	1686	1690	465
25°	1501	1519	1545	1577	1588	691
35°	1300	1334	1380	1427	1442	814
45°	1068	1116	1184	1248	1269	824
55°	823	882	970	1043	1071	733
65°	563	630	729	806	836	556
75°	293	368	459	531	550	309
85°	62	106	117	114	110	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1734.3	1734.3	1734.3	1734.3	1734.3
2.5°	1736.0	1734.3	1726.7	1736.9	1736.0
5°	1727.6	1727.6	1722.5	1734.3	1734.3
7.5°	1715.8	1716.6	1714.9	1728.4	1728.4
10°	1697.2	1700.6	1703.1	1718.3	1720.0
12.5°	1675.3	1681.2	1686.2	1704.8	1706.5
15°	1646.6	1655.9	1666.8	1686.2	1689.6
17.5°	1617.1	1628.0	1639.9	1665.2	1669.4
20°	1581.6	1594.3	1613.7	1639.0	1645.8
22.5°	1542.0	1559.7	1580.0	1610.3	1618.8
25°	1500.7	1519.2	1545.4	1577.4	1587.6
27.5°	1456.0	1477.9	1507.4	1544.5	1555.5
30°	1406.2	1431.5	1467.8	1507.4	1519.2
32.5°	1353.9	1383.4	1423.9	1467.8	1481.3
35°	1299.9	1333.6	1380.0	1427.3	1442.5
37.5°	1246.8	1280.5	1335.3	1385.1	1399.4
40°	1189.4	1226.5	1286.4	1339.5	1359.8
42.5°	1128.7	1172.5	1235.8	1294.8	1314.2
45°	1067.9	1116.0	1184.3	1247.6	1268.7
47.5°	1006.3	1059.5	1134.6	1198.7	1223.1
50°	944.8	1001.3	1079.7	1148.9	1174.2
52.5°	882.3	941.4	1026.6	1100.0	1122.8
55°	823.3	881.5	970.1	1042.6	1071.3
57.5°	755.0	820.8	914.4	987.8	1015.6
60°	693.4	757.5	852.0	929.6	960.0
62.5°	626.8	692.5	792.1	869.7	899.2
65°	562.6	630.1	728.8	806.4	836.0
67.5°	493.5	564.3	665.6	740.6	769.3
70°	431.9	498.5	598.1	674.8	703.5
72.5°	356.8	432.7	528.1	604.0	635.2
75°	292.7	367.8	458.9	531.4	550.0
77.5°	225.2	300.3	390.6	437.8	450.5
80°	165.3	236.2	308.7	334.0	334.9
82.5°	111.3	173.8	215.1	227.8	226.1
85°	61.6	106.3	117.3	113.9	110.5
87.5°	25.3	35.4	28.7	20.2	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)