

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: P474667

Luminaire Tested: **24CZ2-60-SQR-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474667
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60-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

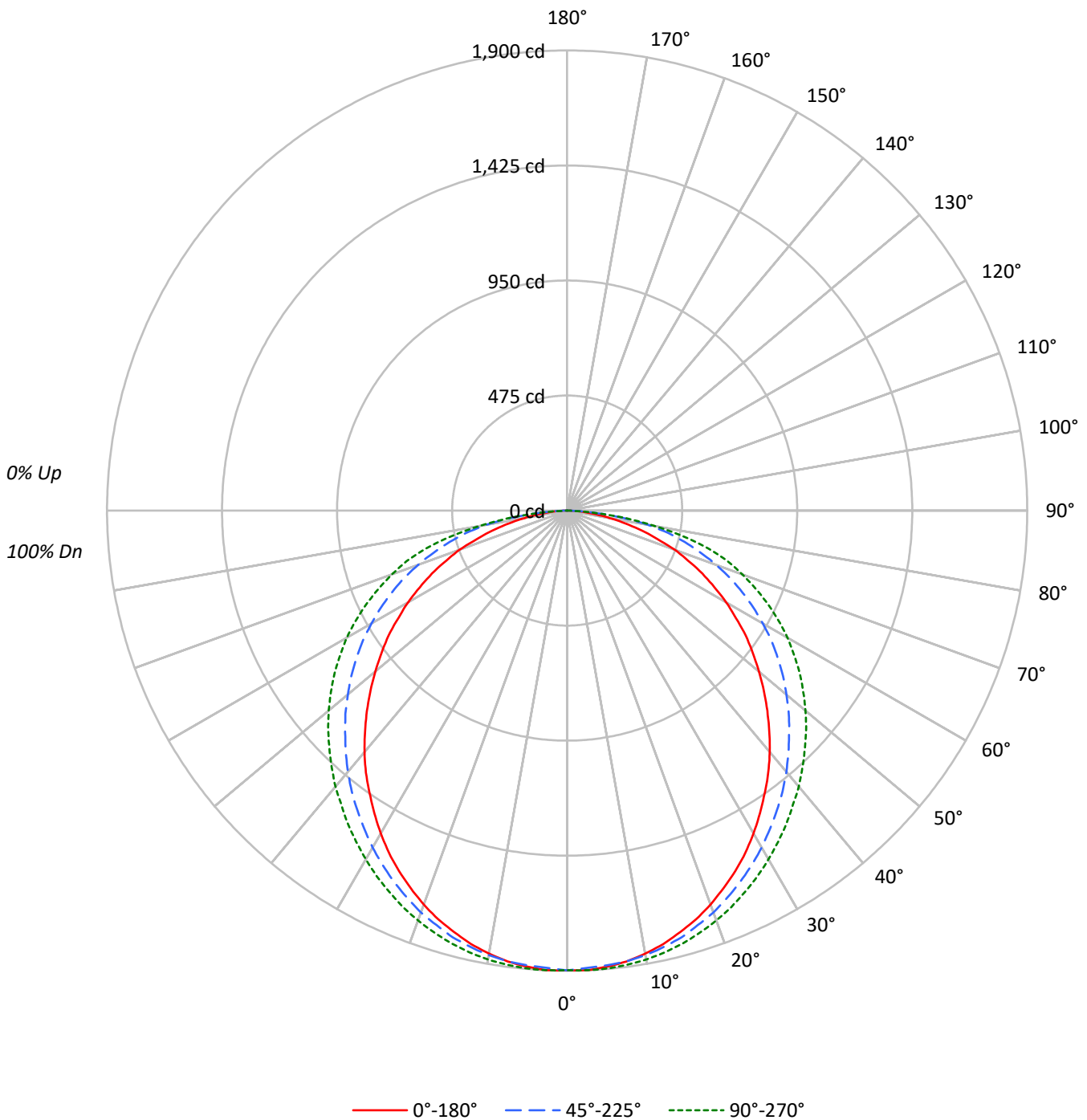
Lumens per Lamp: N/A
Luminaire Lumens: 5778.6 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.3
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	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°	5108	5108	5108
5°	5107	5092	5127
10°	5076	5093	5144
15°	5020	5082	5152
20°	4957	5058	5158
25°	4877	5022	5159
30°	4782	4992	5166
35°	4673	4962	5186
40°	4573	4946	5228
45°	4448	4933	5284
50°	4329	4947	5380
55°	4227	4981	5501
60°	4084	5018	5654
65°	3921	5079	5826
70°	3719	5150	6057
75°	3330	5221	6258
80°	2803	5236	5680
85°	2081	3961	3733



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.9	3.1
10°-20°	515.5	8.9
20°-30°	780.4	13.5
30°-40°	944.0	16.3
40°-50°	996.5	17.2
50°-60°	939.7	16.3
60°-70°	774.7	13.4
70°-80°	508.2	8.8
80°-90°	139.7	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°	1475.8	25.5
0°-40°	2419.8	41.9
0°-60°	4356.0	75.4
0°-90°	5778.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5778.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1898	1898	1898	1898	1898	
5°	1891	1891	1885	1898	1898	179
15°	1802	1812	1824	1846	1849	508
25°	1642	1663	1691	1726	1738	756
35°	1423	1460	1510	1562	1579	891
45°	1169	1221	1296	1365	1388	902
55°	901	965	1062	1141	1172	803
65°	616	690	798	883	915	608
75°	320	402	502	582	602	338
85°	67	116	128	125	121	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1898.1	1898.1	1898.1	1898.1	1898.1
2.5°	1899.9	1898.1	1889.8	1900.9	1899.9
5°	1890.7	1890.7	1885.2	1898.1	1898.1
7.5°	1877.8	1878.7	1876.9	1891.6	1891.6
10°	1857.5	1861.2	1863.9	1880.6	1882.4
12.5°	1833.5	1839.9	1845.5	1865.8	1867.6
15°	1802.1	1812.2	1824.2	1845.5	1849.2
17.5°	1769.8	1781.8	1794.7	1822.4	1827.0
20°	1731.0	1744.8	1766.1	1793.8	1801.2
22.5°	1687.6	1707.0	1729.1	1762.4	1771.6
25°	1642.4	1662.7	1691.3	1726.4	1737.5
27.5°	1593.4	1617.4	1649.8	1690.4	1702.4
30°	1539.0	1566.7	1606.4	1649.8	1662.7
32.5°	1481.7	1514.0	1558.4	1606.4	1621.1
35°	1422.6	1459.6	1510.4	1562.0	1578.7
37.5°	1364.5	1401.4	1461.4	1515.9	1531.6
40°	1301.7	1342.3	1407.9	1466.0	1488.2
42.5°	1235.2	1283.2	1352.5	1417.1	1438.3
45°	1168.8	1221.4	1296.2	1365.4	1388.5
47.5°	1101.4	1159.5	1241.7	1311.9	1338.6
50°	1034.0	1095.8	1181.7	1257.4	1285.1
52.5°	965.7	1030.3	1123.5	1203.8	1228.8
55°	901.0	964.7	1061.7	1141.1	1172.5
57.5°	826.3	898.3	1000.7	1081.1	1111.5
60°	758.9	829.0	932.4	1017.4	1050.6
62.5°	685.9	757.9	866.9	951.8	984.1
65°	615.8	689.6	797.6	882.6	914.9
67.5°	540.1	617.6	728.4	810.6	842.0
70°	472.7	545.6	654.5	738.6	769.9
72.5°	390.5	473.6	577.9	661.0	695.2
75°	320.3	402.5	502.2	581.6	601.9
77.5°	246.5	328.7	427.4	479.1	493.0
80°	180.9	258.5	337.9	365.6	366.5
82.5°	121.9	190.2	235.4	249.3	247.4
85°	67.4	116.3	128.3	124.6	120.9
87.5°	27.7	38.8	31.4	22.2	17.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)