

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: P474637

Luminaire Tested: **24CZ2-60VHE-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474637
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60VHE-SQR-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5707.0 lumens
Efficiency: N/A
Efficacy: 140.2 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

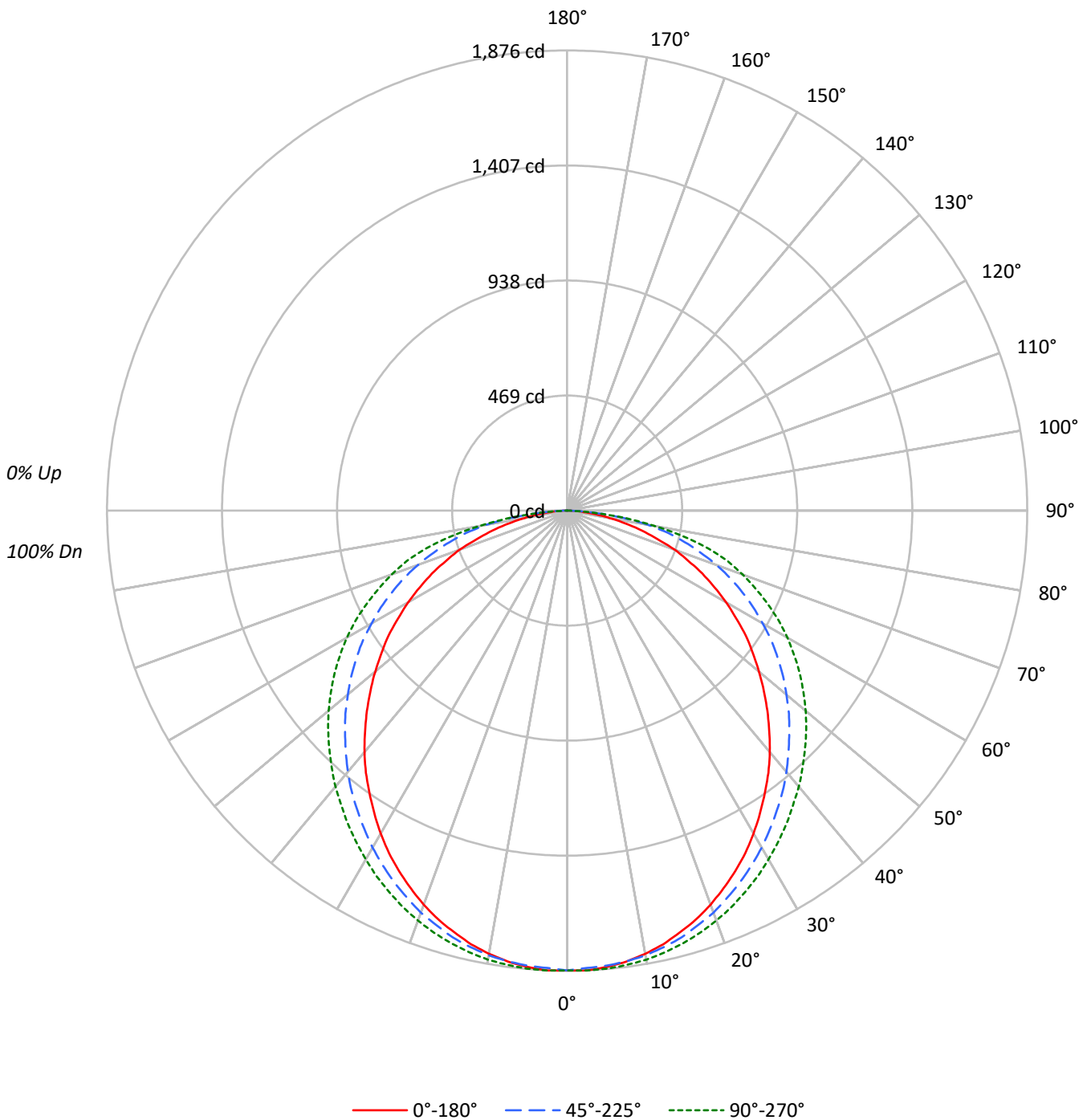
Input Watts (W): 40.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5045	5045	5045
5°	5044	5029	5064
10°	5012	5030	5080
15°	4958	5019	5088
20°	4895	4995	5094
25°	4816	4959	5095
30°	4723	4929	5102
35°	4616	4900	5122
40°	4516	4884	5163
45°	4393	4872	5219
50°	4275	4886	5313
55°	4175	4919	5432
60°	4034	4956	5584
65°	3872	5016	5753
70°	3673	5086	5983
75°	3290	5157	6181
80°	2769	5171	5610
85°	2056	3912	3687



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.7	3.1
10°-20°	509.1	8.9
20°-30°	770.7	13.5
30°-40°	932.3	16.3
40°-50°	984.1	17.2
50°-60°	928.0	16.3
60°-70°	765.1	13.4
70°-80°	501.9	8.8
80°-90°	138.0	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°	1457.5	25.5
0°-40°	2389.8	41.9
0°-60°	4301.9	75.4
0°-90°	5707.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5707.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1875	1875	1875	1875	1875	
5°	1867	1867	1862	1875	1875	177
15°	1780	1790	1802	1823	1826	502
25°	1622	1642	1670	1705	1716	747
35°	1405	1442	1492	1543	1559	880
45°	1154	1206	1280	1348	1371	891
55°	890	953	1048	1127	1158	793
65°	608	681	788	872	904	600
75°	316	398	496	574	594	334
85°	67	115	127	123	119	83
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1874.6	1874.6	1874.6	1874.6	1874.6
2.5°	1876.4	1874.6	1866.4	1877.3	1876.4
5°	1867.3	1867.3	1861.8	1874.6	1874.6
7.5°	1854.5	1855.4	1853.6	1868.2	1868.2
10°	1834.4	1838.1	1840.8	1857.2	1859.1
12.5°	1810.7	1817.1	1822.6	1842.6	1844.5
15°	1779.7	1789.8	1801.6	1822.6	1826.2
17.5°	1747.8	1759.7	1772.4	1799.8	1804.4
20°	1709.5	1723.2	1744.2	1771.5	1778.8
22.5°	1666.7	1685.8	1707.7	1740.5	1749.7
25°	1622.0	1642.1	1670.3	1705.0	1715.9
27.5°	1573.7	1597.4	1629.3	1669.4	1681.3
30°	1519.9	1547.2	1586.4	1629.3	1642.1
32.5°	1463.4	1495.3	1539.0	1586.4	1601.0
35°	1405.0	1441.5	1491.6	1542.7	1559.1
37.5°	1347.6	1384.0	1443.3	1497.1	1512.6
40°	1285.6	1325.7	1390.4	1447.9	1469.7
42.5°	1219.9	1267.3	1335.7	1399.5	1420.5
45°	1154.3	1206.2	1280.1	1348.5	1371.3
47.5°	1087.7	1145.2	1226.3	1295.6	1322.0
50°	1021.2	1082.2	1167.0	1241.8	1269.2
52.5°	953.7	1017.5	1109.6	1188.9	1213.5
55°	889.9	952.8	1048.5	1126.9	1157.9
57.5°	816.0	887.1	988.3	1067.7	1097.7
60°	749.5	818.8	920.9	1004.7	1037.6
62.5°	677.4	748.5	856.1	940.0	971.9
65°	608.1	681.1	787.8	871.6	903.5
67.5°	533.4	610.0	719.4	800.5	831.5
70°	466.8	538.8	646.4	729.4	760.4
72.5°	385.7	467.7	570.8	652.8	686.5
75°	316.4	397.5	496.0	574.4	594.5
77.5°	243.4	324.6	422.1	473.2	486.9
80°	178.7	255.3	333.7	361.1	362.0
82.5°	120.4	187.8	232.5	246.2	244.3
85°	66.6	114.9	126.7	123.1	119.4
87.5°	27.4	38.3	31.0	21.9	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)