

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: P474618

Luminaire Tested: **24CZ2-65-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474618  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-65-SQR-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, SQUARE LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

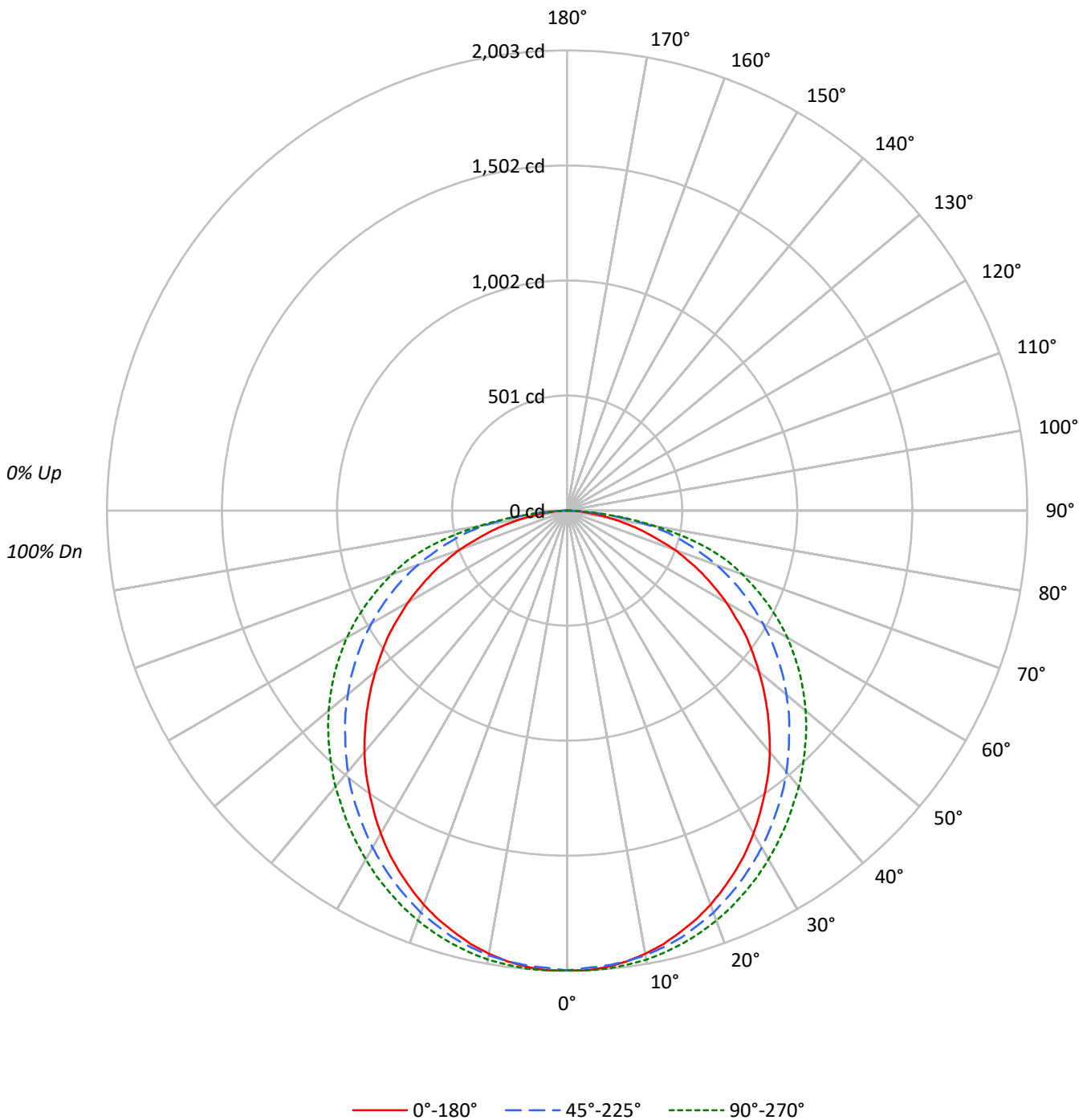
Lumens per Lamp: N/A  
Luminaire Lumens: 6092.7 lumens  
Efficiency: N/A  
Efficacy: 119.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 51  
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°	5385	5385	5385
5°	5385	5369	5406
10°	5351	5370	5423
15°	5293	5358	5432
20°	5227	5332	5438
25°	5141	5295	5439
30°	5042	5263	5447
35°	4928	5231	5468
40°	4821	5214	5512
45°	4690	5201	5571
50°	4564	5216	5672
55°	4457	5252	5800
60°	4306	5291	5962
65°	4134	5355	6142
70°	3921	5430	6387
75°	3512	5505	6598
80°	2957	5521	5988
85°	2195	4177	3937



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.7	3.1
10°-20°	543.5	8.9
20°-30°	822.8	13.5
30°-40°	995.3	16.3
40°-50°	1050.6	17.2
50°-60°	990.8	16.3
60°-70°	816.8	13.4
70°-80°	535.8	8.8
80°-90°	147.3	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°	1556.0	25.5
0°-40°	2551.3	41.9
0°-60°	4592.7	75.4
0°-90°	6092.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6092.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2001	2001	2001	2001	2001	
5°	1994	1994	1988	2001	2001	189
15°	1900	1911	1923	1946	1950	536
25°	1732	1753	1783	1820	1832	797
35°	1500	1539	1592	1647	1664	939
45°	1232	1288	1367	1440	1464	951
55°	950	1017	1119	1203	1236	846
65°	649	727	841	930	965	641
75°	338	424	530	613	635	357
85°	71	123	135	131	128	88
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2001.3	2001.3	2001.3	2001.3	2001.3
2.5°	2003.2	2001.3	1992.5	2004.2	2003.2
5°	1993.5	1993.5	1987.6	2001.3	2001.3
7.5°	1979.8	1980.8	1978.9	1994.4	1994.4
10°	1958.4	1962.3	1965.2	1982.8	1984.7
12.5°	1933.1	1939.9	1945.8	1967.2	1969.1
15°	1900.0	1910.7	1923.4	1945.8	1949.7
17.5°	1866.0	1878.6	1892.2	1921.4	1926.3
20°	1825.1	1839.7	1862.1	1891.3	1899.1
22.5°	1779.3	1799.8	1823.1	1858.2	1867.9
25°	1731.6	1753.0	1783.2	1820.2	1831.9
27.5°	1680.0	1705.4	1739.4	1782.2	1794.9
30°	1622.6	1651.8	1693.7	1739.4	1753.0
32.5°	1562.3	1596.3	1643.1	1693.7	1709.2
35°	1500.0	1538.9	1592.4	1646.9	1664.5
37.5°	1438.6	1477.6	1540.9	1598.3	1614.8
40°	1372.5	1415.3	1484.4	1545.7	1569.1
42.5°	1302.4	1353.0	1426.0	1494.1	1516.5
45°	1232.3	1287.8	1366.6	1439.6	1464.0
47.5°	1161.2	1222.6	1309.2	1383.2	1411.4
50°	1090.2	1155.4	1245.9	1325.7	1354.9
52.5°	1018.1	1086.3	1184.6	1269.3	1295.6
55°	950.0	1017.2	1119.4	1203.1	1236.2
57.5°	871.2	947.1	1055.1	1139.8	1171.9
60°	800.1	874.1	983.1	1072.7	1107.7
62.5°	723.2	799.1	914.0	1003.5	1037.6
65°	649.2	727.1	841.0	930.5	964.6
67.5°	569.4	651.2	768.0	854.6	887.7
70°	498.4	575.3	690.1	778.7	811.8
72.5°	411.7	499.3	609.3	696.9	733.0
75°	337.8	424.4	529.5	613.2	634.6
77.5°	259.9	346.5	450.7	505.2	519.8
80°	190.8	272.5	356.3	385.5	386.4
82.5°	128.5	200.5	248.2	262.8	260.9
85°	71.1	122.6	135.3	131.4	127.5
87.5°	29.2	40.9	33.1	23.4	18.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)