

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: P474639

Luminaire Tested: **24CZ2-75VHE-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474639  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-75VHE-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: 7115.0 lumens  
Efficiency: N/A  
Efficacy: 138.4 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

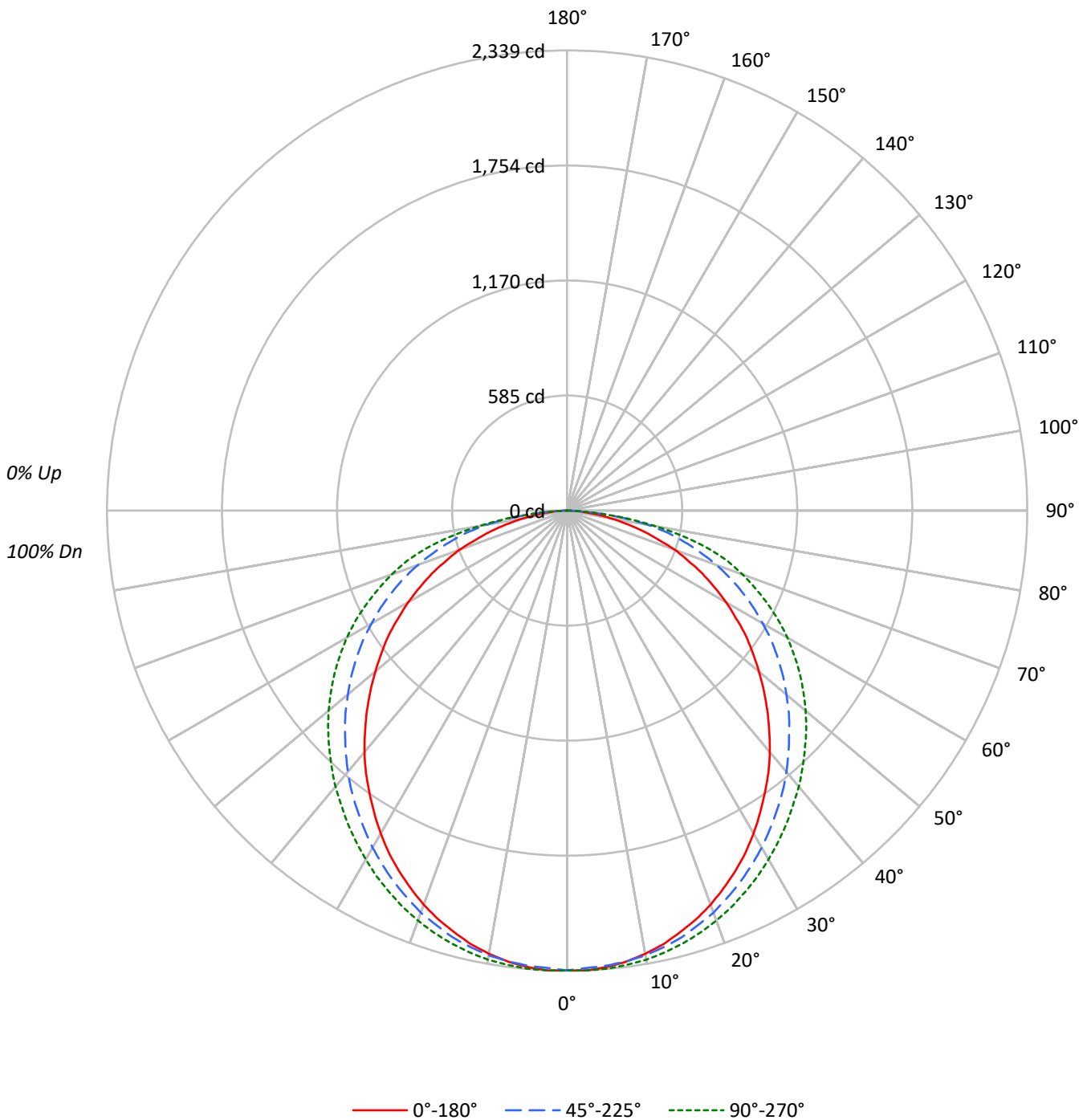
Input Watts (W): 51.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	6289	6289	6289
5°	6288	6270	6313
10°	6249	6271	6333
15°	6181	6257	6343
20°	6103	6227	6351
25°	6004	6183	6352
30°	5888	6146	6361
35°	5754	6109	6385
40°	5630	6089	6437
45°	5477	6073	6506
50°	5330	6091	6624
55°	5205	6133	6773
60°	5029	6179	6962
65°	4828	6253	7173
70°	4579	6341	7459
75°	4101	6430	7705
80°	3453	6447	6994
85°	2563	4878	4597



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	221.5	3.1
10°-20°	634.7	8.9
20°-30°	960.8	13.5
30°-40°	1162.3	16.3
40°-50°	1226.9	17.2
50°-60°	1157.0	16.3
60°-70°	953.9	13.4
70°-80°	625.8	8.8
80°-90°	172.1	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°	1817.0	25.5
0°-40°	2979.4	41.9
0°-60°	5363.3	75.4
0°-90°	7115.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7115.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2337	2337	2337	2337	2337	
5°	2328	2328	2321	2337	2337	221
15°	2219	2231	2246	2272	2277	626
25°	2022	2047	2082	2126	2139	931
35°	1752	1797	1860	1923	1944	1097
45°	1439	1504	1596	1681	1710	1111
55°	1109	1188	1307	1405	1444	988
65°	758	849	982	1087	1126	749
75°	394	496	618	716	741	417
85°	83	143	158	154	149	103
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2337.0	2337.0	2337.0	2337.0	2337.0
2.5°	2339.3	2337.0	2326.8	2340.4	2339.3
5°	2327.9	2327.9	2321.1	2337.0	2337.0
7.5°	2312.0	2313.2	2310.9	2329.1	2329.1
10°	2287.0	2291.6	2295.0	2315.4	2317.7
12.5°	2257.5	2265.4	2272.2	2297.3	2299.5
15°	2218.8	2231.3	2246.1	2272.2	2276.8
17.5°	2179.0	2193.8	2209.7	2243.8	2249.5
20°	2131.3	2148.3	2174.5	2208.6	2217.7
22.5°	2077.9	2101.7	2129.0	2169.9	2181.3
25°	2022.2	2047.2	2082.4	2125.6	2139.3
27.5°	1961.9	1991.5	2031.3	2081.3	2096.1
30°	1894.9	1929.0	1977.8	2031.3	2047.2
32.5°	1824.4	1864.2	1918.7	1977.8	1996.0
35°	1751.6	1797.1	1859.6	1923.3	1943.7
37.5°	1680.0	1725.5	1799.4	1866.4	1885.8
40°	1602.7	1652.7	1733.5	1805.1	1832.3
42.5°	1520.9	1580.0	1665.3	1744.8	1771.0
45°	1439.1	1503.8	1595.9	1681.2	1709.6
47.5°	1356.1	1427.7	1528.8	1615.2	1648.2
50°	1273.1	1349.3	1455.0	1548.2	1582.3
52.5°	1189.0	1268.5	1383.4	1482.2	1512.9
55°	1109.4	1187.8	1307.2	1405.0	1443.6
57.5°	1017.3	1106.0	1232.2	1331.1	1368.6
60°	934.4	1020.7	1148.1	1252.6	1293.6
62.5°	844.6	933.2	1067.4	1171.9	1211.7
65°	758.2	849.1	982.1	1086.7	1126.5
67.5°	665.0	760.4	896.8	998.0	1036.7
70°	582.0	671.8	805.9	909.4	948.0
72.5°	480.8	583.1	711.6	813.9	855.9
75°	394.4	495.6	618.4	716.1	741.1
77.5°	303.5	404.7	526.3	589.9	607.0
80°	222.8	318.3	416.0	450.1	451.3
82.5°	150.0	234.2	289.9	306.9	304.6
85°	83.0	143.2	158.0	153.5	148.9
87.5°	34.1	47.7	38.6	27.3	21.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)