

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: P474640

Luminaire Tested: **24CZ2-80VHE-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474640
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-80VHE-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: 7618.5 lumens
Efficiency: N/A
Efficacy: 135.6 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

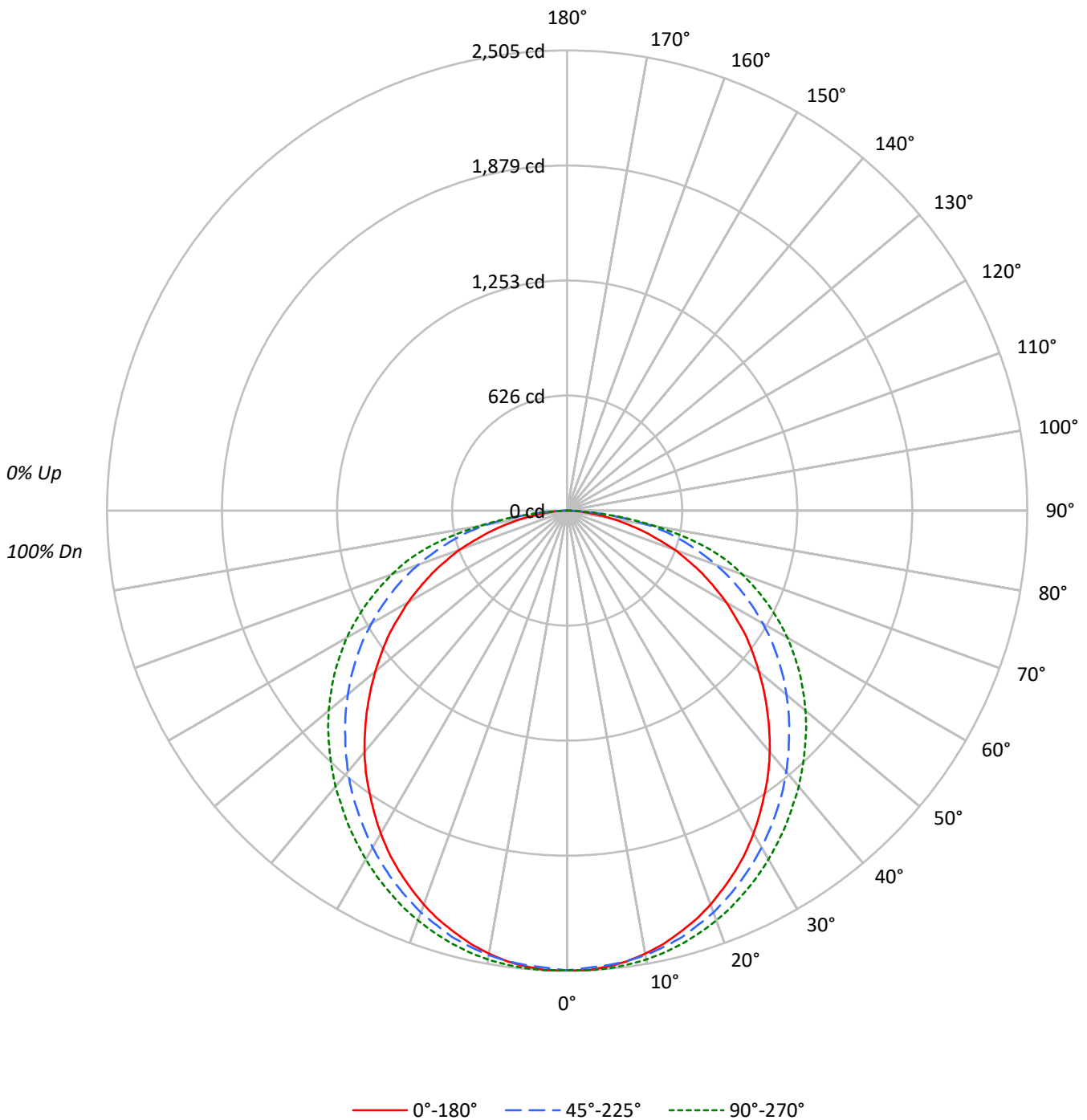
Input Watts (W): 56.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6734	6734	6734
5°	6733	6714	6760
10°	6692	6715	6781
15°	6619	6700	6792
20°	6535	6668	6800
25°	6429	6621	6801
30°	6305	6581	6811
35°	6161	6541	6837
40°	6029	6520	6892
45°	5864	6503	6967
50°	5707	6522	7093
55°	5573	6567	7252
60°	5385	6616	7455
65°	5169	6696	7680
70°	4903	6789	7987
75°	4391	6884	8251
80°	3698	6904	7488
85°	2745	5224	4922



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.2	3.1
10°-20°	679.6	8.9
20°-30°	1028.8	13.5
30°-40°	1244.6	16.3
40°-50°	1313.7	17.2
50°-60°	1238.9	16.3
60°-70°	1021.4	13.4
70°-80°	670.0	8.8
80°-90°	184.2	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°	1945.6	25.5
0°-40°	3190.2	41.9
0°-60°	5742.8	75.4
0°-90°	7618.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7618.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2502	2502	2502	2502	2502	
5°	2493	2493	2485	2502	2502	237
15°	2376	2389	2405	2433	2438	670
25°	2165	2192	2230	2276	2291	997
35°	1876	1924	1991	2059	2081	1174
45°	1541	1610	1709	1800	1831	1189
55°	1188	1272	1400	1504	1546	1058
65°	812	909	1052	1164	1206	802
75°	422	531	662	767	794	446
85°	89	153	169	164	159	110
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2502.4	2502.4	2502.4	2502.4	2502.4
2.5°	2504.9	2502.4	2491.5	2506.1	2504.9
5°	2492.7	2492.7	2485.4	2502.4	2502.4
7.5°	2475.7	2476.9	2474.4	2493.9	2493.9
10°	2448.9	2453.7	2457.4	2479.3	2481.7
12.5°	2417.2	2425.8	2433.1	2459.8	2462.3
15°	2375.8	2389.2	2405.1	2433.1	2437.9
17.5°	2333.2	2349.1	2366.1	2402.6	2408.7
20°	2282.1	2300.4	2328.4	2364.9	2374.6
22.5°	2224.9	2250.5	2279.7	2323.5	2335.7
25°	2165.3	2192.1	2229.8	2276.0	2290.6
27.5°	2100.8	2132.4	2175.0	2228.6	2244.4
30°	2029.0	2065.5	2117.8	2175.0	2192.1
32.5°	1953.5	1996.1	2054.5	2117.8	2137.3
35°	1875.6	1924.3	1991.2	2059.4	2081.3
37.5°	1798.9	1847.6	1926.7	1998.5	2019.2
40°	1716.2	1769.7	1856.1	1932.8	1962.0
42.5°	1628.5	1691.8	1783.1	1868.3	1896.3
45°	1540.9	1610.3	1708.9	1800.1	1830.6
47.5°	1452.0	1528.7	1637.0	1729.5	1764.8
50°	1363.2	1444.7	1557.9	1657.7	1694.3
52.5°	1273.1	1358.3	1481.3	1587.1	1620.0
55°	1187.9	1271.9	1399.7	1504.4	1545.8
57.5°	1089.3	1184.3	1319.4	1425.3	1465.4
60°	1000.5	1093.0	1229.3	1341.3	1385.1
62.5°	904.3	999.3	1142.9	1254.9	1297.5
65°	811.8	909.2	1051.6	1163.6	1206.2
67.5°	712.0	814.3	960.3	1068.6	1110.0
70°	623.2	719.3	862.9	973.7	1015.1
72.5°	514.8	624.4	761.9	871.5	916.5
75°	422.3	530.7	662.1	766.8	793.6
77.5°	325.0	433.3	563.5	631.7	650.0
80°	238.6	340.8	445.5	482.0	483.2
82.5°	160.7	250.7	310.4	328.6	326.2
85°	88.9	153.4	169.2	164.3	159.4
87.5°	36.5	51.1	41.4	29.2	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)