

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: P473789

Luminaire Tested: **24CZ2-75VHE-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473789
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75VHE-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

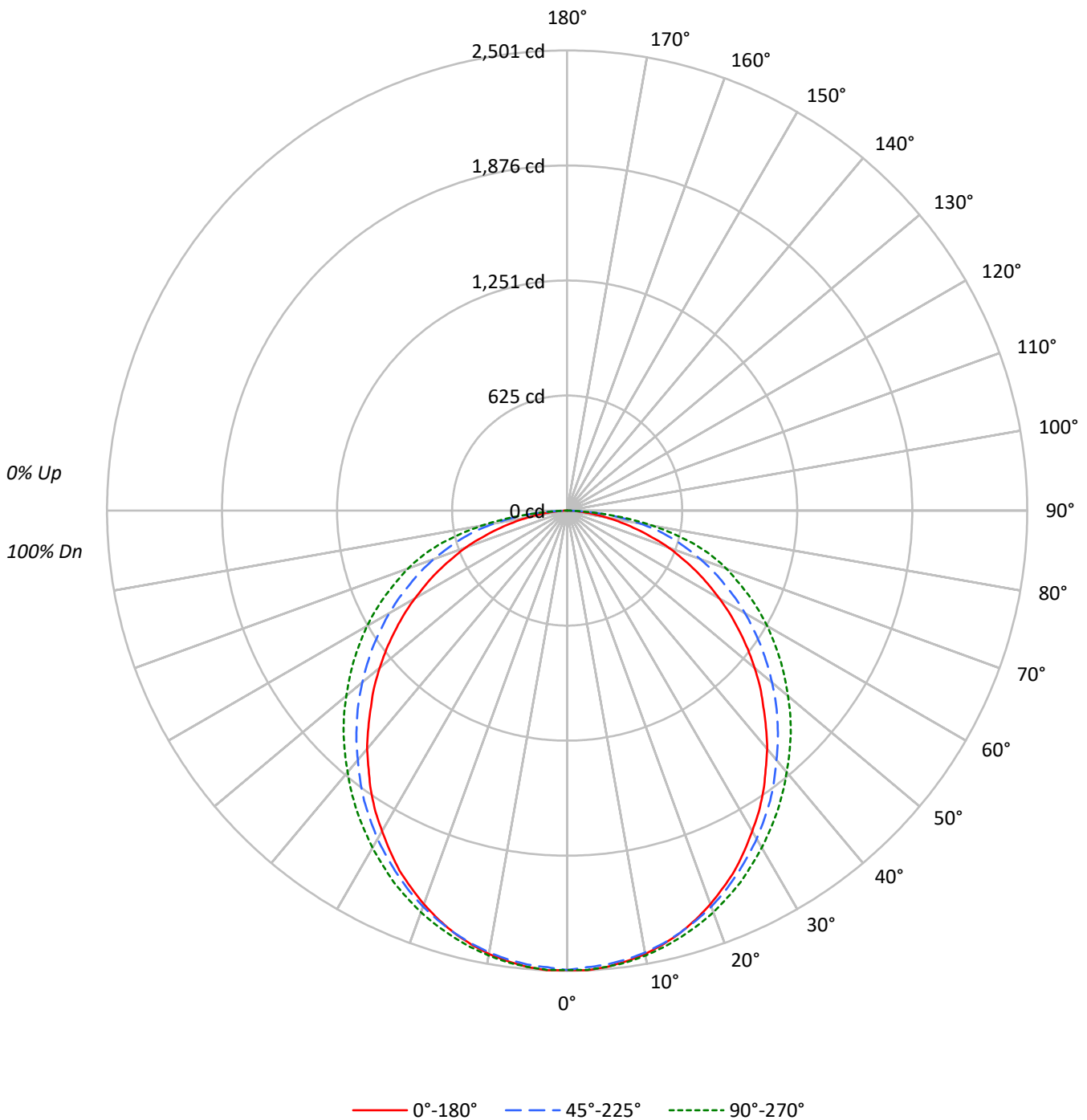
Lumens per Lamp: N/A
Luminaire Lumens: 7226.8 lumens
Efficiency: N/A
Efficacy: 140.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	99	95	105	101	97	93	97	93	90		93	90	87		89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74		81	76	72		78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61		71	65	60		68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52		63	57	51		61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45		56	50	44		55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39		51	44	39		49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35		47	40	35		45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31		43	36	31		41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25		36	30	25		36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3360	3360	3360
5°	3362	3345	3362
10°	3343	3332	3355
15°	3310	3308	3340
20°	3260	3280	3327
25°	3203	3240	3310
30°	3125	3202	3287
35°	3055	3160	3273
40°	2971	3109	3260
45°	2870	3077	3270
50°	2784	3042	3280
55°	2681	3021	3317
60°	2570	3007	3377
65°	2450	2996	3464
70°	2306	3027	3624
75°	2027	3090	3769
80°	1691	3112	3636
85°	1207	2668	2703



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.1	3.3
10°-20°	672.4	9.3
20°-30°	1008.8	14.0
30°-40°	1204.4	16.7
40°-50°	1247.5	17.3
50°-60°	1148.5	15.9
60°-70°	926.4	12.8
70°-80°	605.3	8.4
80°-90°	177.5	2.5
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°	1917.3	26.5
0°-40°	3121.6	43.2
0°-60°	5517.6	76.3
0°-90°	7226.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7226.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2497	2497	2497	2497	2497	
5°	2489	2487	2476	2490	2489	236
15°	2376	2376	2375	2398	2398	669
25°	2158	2162	2182	2222	2230	992
35°	1860	1876	1924	1977	1993	1162
45°	1508	1546	1617	1689	1719	1166
55°	1143	1192	1288	1382	1414	1023
65°	769	822	941	1048	1088	761
75°	390	464	594	697	725	416
85°	78	135	173	183	175	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2497.3	2497.3	2497.3	2497.3	2497.3
2.5°	2500.8	2497.3	2484.5	2499.6	2498.5
5°	2489.1	2486.8	2476.3	2490.3	2489.1
7.5°	2470.5	2469.3	2461.1	2476.3	2476.3
10°	2447.1	2444.8	2438.9	2456.4	2455.3
12.5°	2414.4	2413.2	2409.7	2430.8	2429.6
15°	2375.9	2375.9	2374.7	2398.1	2398.1
17.5°	2329.2	2330.3	2335.0	2361.9	2363.0
20°	2276.6	2281.3	2290.7	2321.0	2323.3
22.5°	2217.1	2226.4	2239.3	2273.1	2276.6
25°	2157.6	2162.2	2182.1	2221.8	2229.9
27.5°	2085.2	2096.8	2122.5	2163.4	2171.6
30°	2011.6	2028.0	2060.7	2102.7	2115.5
32.5°	1939.2	1953.2	1991.8	2039.6	2054.8
35°	1859.8	1876.2	1924.1	1976.6	1992.9
37.5°	1772.3	1798.0	1848.2	1908.9	1926.4
40°	1691.7	1715.1	1769.9	1837.7	1856.3
42.5°	1599.5	1628.7	1695.2	1764.1	1787.5
45°	1508.4	1545.8	1617.0	1689.4	1718.6
47.5°	1423.2	1453.5	1537.6	1619.3	1645.0
50°	1329.8	1364.8	1453.5	1539.9	1566.8
52.5°	1237.6	1279.6	1369.5	1460.6	1489.7
55°	1143.0	1192.0	1287.8	1382.3	1413.9
57.5°	1051.9	1101.0	1200.2	1300.6	1333.3
60°	955.0	1007.6	1117.3	1214.2	1255.1
62.5°	861.6	914.2	1029.7	1134.8	1173.3
65°	769.4	821.9	941.0	1048.4	1088.1
67.5°	673.7	730.9	858.1	962.0	1000.6
70°	586.1	641.0	769.4	880.3	921.2
72.5°	485.7	551.1	681.8	791.6	830.1
75°	389.9	463.5	594.3	697.0	725.0
77.5°	301.2	374.8	505.5	582.6	600.1
80°	218.3	293.0	401.6	455.3	469.3
82.5°	141.3	218.3	290.7	326.9	331.6
85°	78.2	135.4	172.8	183.3	175.1
87.5°	28.0	51.4	50.2	40.9	32.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)