

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: P474298

Luminaire Tested: **24CZ2-120VHE-RDP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474298
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-120VHE-RDP-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8177.8 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

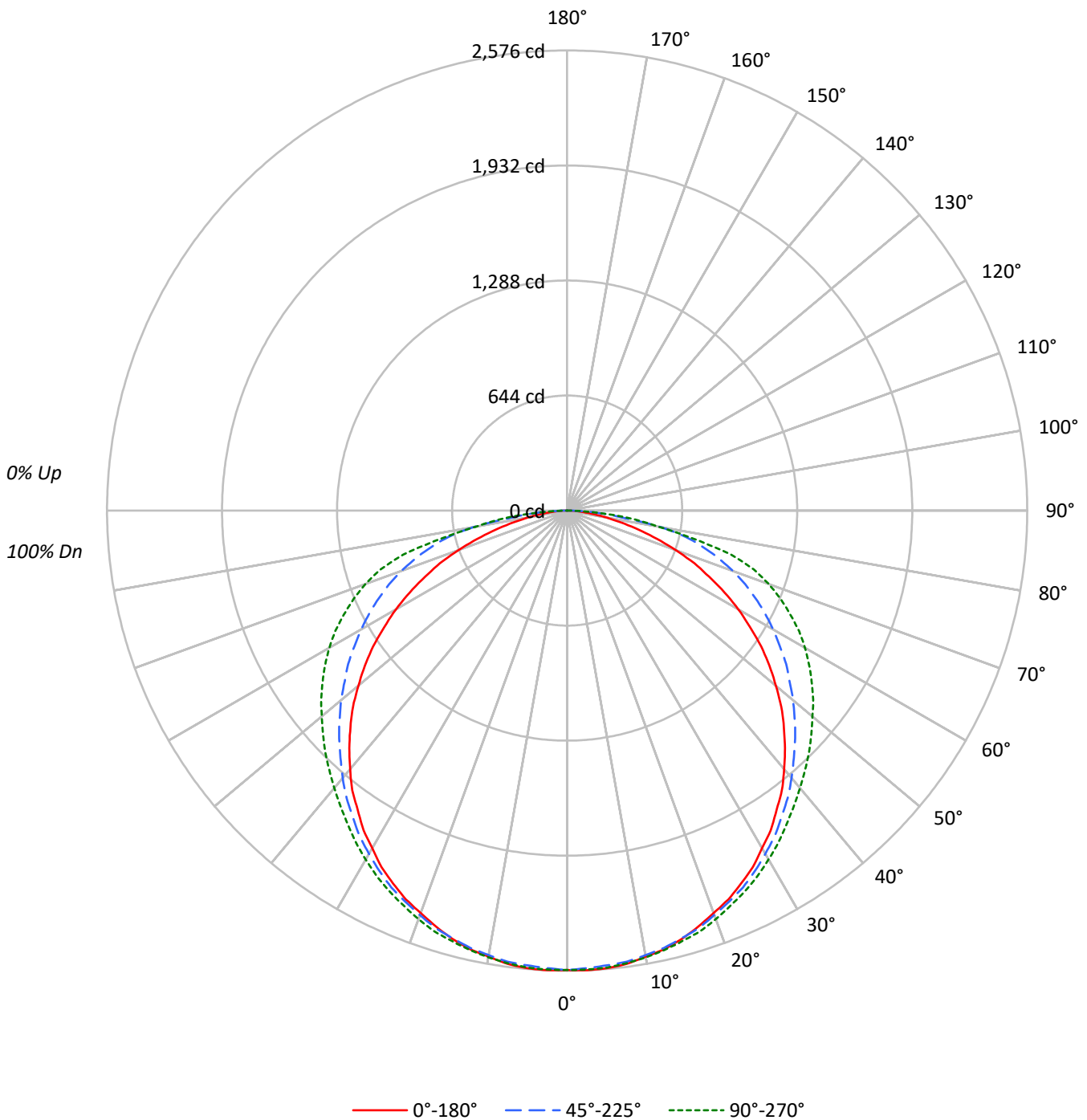
Input Watts (W): 84.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3460	3460	3460
5°	3474	3452	3468
10°	3464	3453	3469
15°	3458	3452	3475
20°	3433	3450	3485
25°	3420	3457	3493
30°	3390	3447	3504
35°	3358	3438	3518
40°	3320	3434	3562
45°	3265	3435	3643
50°	3193	3456	3753
55°	3111	3511	3921
60°	2980	3580	4137
65°	2790	3706	4391
70°	2537	3878	4723
75°	2150	4091	4935
80°	1698	4116	3990
85°	1254	3132	3509



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.0	3.0
10°-20°	702.1	8.6
20°-30°	1073.6	13.1
30°-40°	1312.4	16.0
40°-50°	1398.9	17.1
50°-60°	1337.5	16.4
60°-70°	1133.0	13.9
70°-80°	761.5	9.3
80°-90°	214.9	2.6
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°	2019.7	24.7
0°-40°	3332.1	40.7
0°-60°	6068.5	74.2
0°-90°	8177.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8177.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2572	2572	2572	2572	2572	
5°	2572	2568	2556	2568	2568	244
15°	2482	2482	2478	2499	2495	700
25°	2304	2312	2328	2349	2353	1062
35°	2044	2060	2093	2134	2142	1281
45°	1716	1744	1805	1882	1914	1323
55°	1326	1375	1497	1614	1671	1181
65°	876	966	1164	1318	1379	870
75°	414	564	787	921	949	443
85°	81	166	203	219	227	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2571.8	2571.8	2571.8	2571.8	2571.8
2.5°	2575.9	2575.9	2563.7	2571.8	2571.8
5°	2571.8	2567.8	2555.6	2567.8	2567.8
7.5°	2559.7	2555.6	2547.5	2559.7	2555.6
10°	2535.3	2535.3	2527.2	2539.4	2539.4
12.5°	2515.0	2511.0	2506.9	2523.1	2519.1
15°	2482.5	2482.5	2478.5	2498.8	2494.7
17.5°	2442.0	2446.0	2450.1	2466.3	2470.4
20°	2397.3	2405.4	2409.5	2433.8	2433.8
22.5°	2356.7	2360.8	2368.9	2393.3	2393.3
25°	2304.0	2312.1	2328.3	2348.6	2352.7
27.5°	2251.2	2255.3	2275.6	2304.0	2308.0
30°	2182.2	2194.4	2218.7	2251.2	2255.3
32.5°	2121.3	2133.5	2161.9	2194.4	2202.5
35°	2044.2	2060.5	2092.9	2133.5	2141.6
37.5°	1975.2	1987.4	2028.0	2072.6	2084.8
40°	1890.4	1914.4	1954.9	2007.7	2028.0
42.5°	1805.2	1829.5	1878.2	1946.8	1971.2
45°	1715.9	1744.3	1805.2	1882.3	1914.4
47.5°	1626.6	1659.1	1728.1	1817.4	1853.9
50°	1525.2	1565.7	1651.0	1752.4	1793.0
52.5°	1427.8	1476.5	1569.8	1683.4	1736.2
55°	1326.3	1375.0	1496.7	1614.4	1671.3
57.5°	1212.7	1277.6	1411.5	1545.5	1606.3
60°	1107.5	1168.0	1330.4	1476.5	1537.3
62.5°	993.9	1075.1	1249.2	1403.4	1464.3
65°	876.2	965.5	1164.0	1318.2	1379.1
67.5°	770.7	868.1	1079.1	1233.0	1293.8
70°	644.9	766.6	985.8	1139.6	1200.5
72.5°	527.2	661.1	888.4	1038.6	1095.4
75°	413.6	563.7	786.9	920.9	949.3
77.5°	308.4	466.3	681.4	738.2	717.9
80°	219.2	373.4	531.2	502.8	515.0
82.5°	142.0	284.1	328.7	373.4	385.1
85°	81.2	166.4	202.9	219.2	227.3
87.5°	36.5	60.9	81.2	81.2	77.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)