

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: P474189

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474189
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75VHE-RDP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4842.1 lumens
Efficiency: N/A
Efficacy: 94.2 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

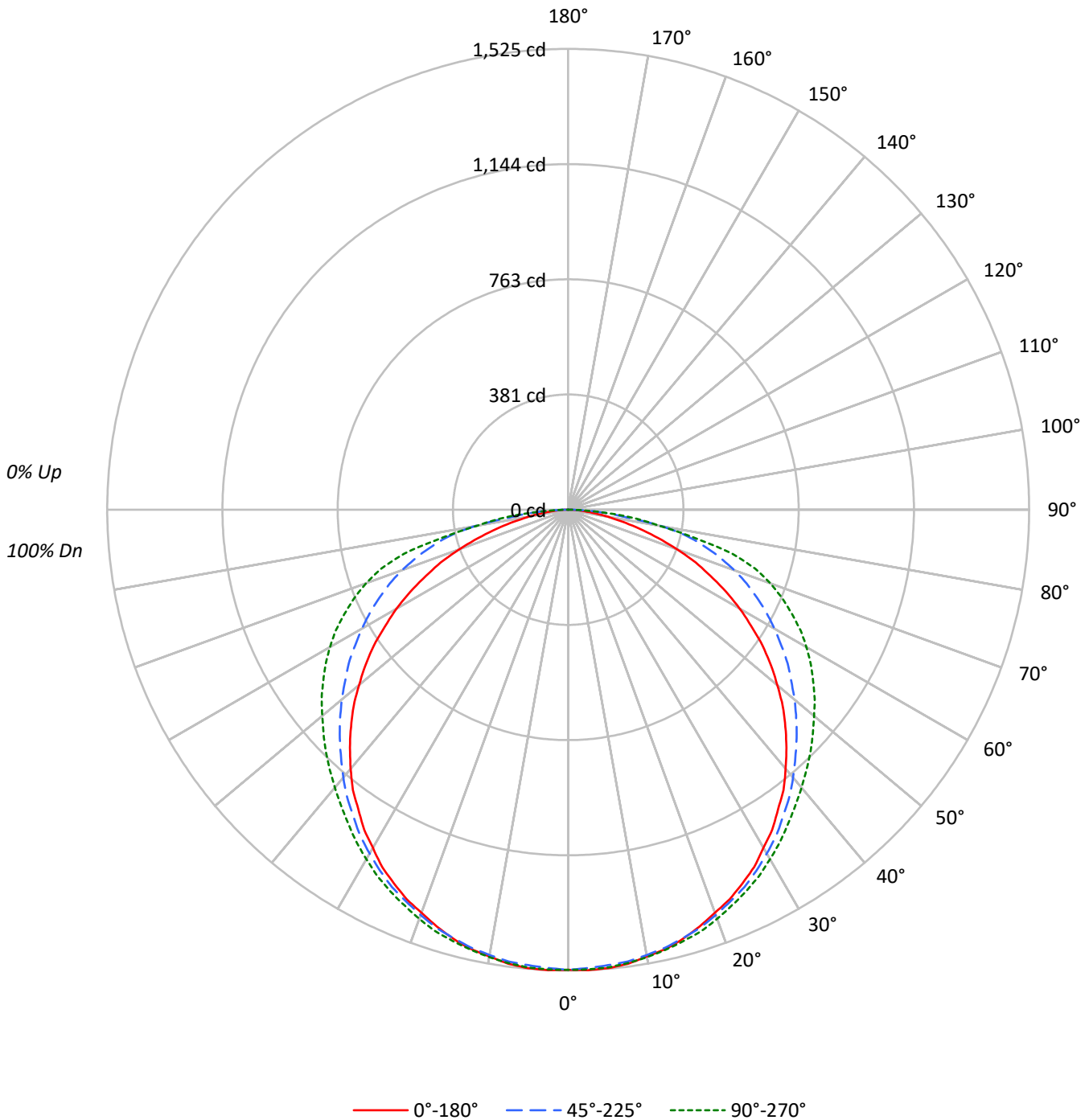
Input Watts (W): 51.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2049	2049	2049
5°	2057	2044	2053
10°	2051	2044	2054
15°	2048	2044	2058
20°	2032	2043	2063
25°	2025	2047	2068
30°	2007	2041	2075
35°	1988	2035	2083
40°	1966	2033	2109
45°	1933	2034	2157
50°	1890	2046	2222
55°	1842	2079	2321
60°	1765	2120	2450
65°	1652	2194	2599
70°	1502	2296	2796
75°	1273	2422	2922
80°	1006	2438	2362
85°	743	1854	2078



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.5	3.0
10°-20°	415.7	8.6
20°-30°	635.7	13.1
30°-40°	777.1	16.0
40°-50°	828.3	17.1
50°-60°	791.9	16.4
60°-70°	670.9	13.9
70°-80°	450.9	9.3
80°-90°	127.2	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°	1195.9	24.7
0°-40°	1972.9	40.7
0°-60°	3593.1	74.2
0°-90°	4842.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4842.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1523	1523	1523	1523	1523	
5°	1523	1520	1513	1520	1520	145
15°	1470	1470	1468	1480	1477	414
25°	1364	1369	1379	1391	1393	629
35°	1210	1220	1239	1263	1268	758
45°	1016	1033	1069	1114	1134	784
55°	785	814	886	956	990	699
65°	519	572	689	780	816	515
75°	245	334	466	545	562	262
85°	48	98	120	130	135	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1522.8	1522.8	1522.8	1522.8	1522.8
2.5°	1525.2	1525.2	1518.0	1522.8	1522.8
5°	1522.8	1520.4	1513.2	1520.4	1520.4
7.5°	1515.6	1513.2	1508.4	1515.6	1513.2
10°	1501.1	1501.1	1496.3	1503.5	1503.5
12.5°	1489.1	1486.7	1484.3	1493.9	1491.5
15°	1469.9	1469.9	1467.5	1479.5	1477.1
17.5°	1445.9	1448.3	1450.7	1460.3	1462.7
20°	1419.4	1424.2	1426.7	1441.1	1441.1
22.5°	1395.4	1397.8	1402.6	1417.0	1417.0
25°	1364.2	1369.0	1378.6	1390.6	1393.0
27.5°	1332.9	1335.3	1347.4	1364.2	1366.6
30°	1292.1	1299.3	1313.7	1332.9	1335.3
32.5°	1256.0	1263.2	1280.1	1299.3	1304.1
35°	1210.4	1220.0	1239.2	1263.2	1268.1
37.5°	1169.5	1176.7	1200.8	1227.2	1234.4
40°	1119.3	1133.5	1157.5	1188.8	1200.8
42.5°	1068.8	1083.3	1112.1	1152.7	1167.1
45°	1016.0	1032.8	1068.8	1114.5	1133.5
47.5°	963.1	982.3	1023.2	1076.1	1097.7
50°	903.0	927.1	977.5	1037.6	1061.6
52.5°	845.4	874.2	929.5	996.8	1028.0
55°	785.3	814.1	886.2	955.9	989.5
57.5°	718.0	756.5	835.8	915.1	951.1
60°	655.8	691.6	787.7	874.2	910.3
62.5°	588.5	636.6	739.6	831.0	867.0
65°	518.8	571.7	689.2	780.5	816.5
67.5°	456.3	514.0	639.0	730.0	766.1
70°	381.8	453.9	583.7	674.8	710.8
72.5°	312.1	391.4	526.0	614.9	648.6
75°	244.9	333.8	465.9	545.2	562.1
77.5°	182.6	276.1	403.5	437.1	425.1
80°	129.8	221.1	314.6	297.7	304.9
82.5°	84.1	168.2	194.6	221.1	228.0
85°	48.1	98.5	120.1	129.8	134.6
87.5°	21.6	36.0	48.1	48.1	45.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)