

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: P474289

Luminaire Tested: **24CZ2-75VHE-RDP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474289  
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-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: 5113.0 lumens  
Efficiency: N/A  
Efficacy: 99.5 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

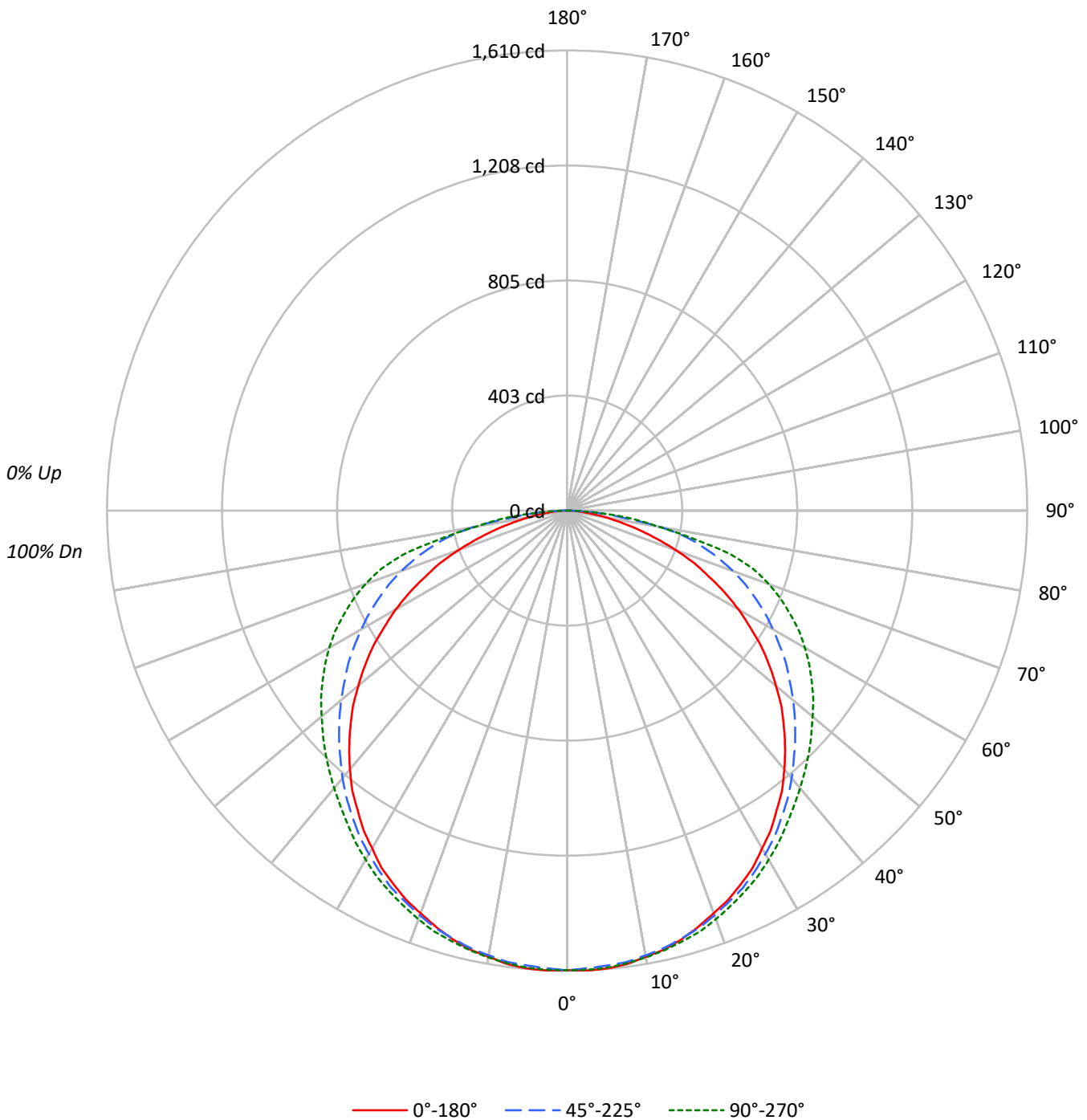
Input Watts (W): 51.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2164	2164	2164
5°	2172	2158	2168
10°	2166	2159	2169
15°	2162	2159	2173
20°	2146	2157	2179
25°	2139	2161	2184
30°	2120	2155	2191
35°	2099	2149	2199
40°	2076	2147	2227
45°	2041	2148	2277
50°	1996	2161	2346
55°	1945	2195	2451
60°	1864	2238	2587
65°	1744	2317	2745
70°	1586	2424	2953
75°	1344	2558	3085
80°	1062	2574	2495
85°	783	1959	2194



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.5	3.0
10°-20°	439.0	8.6
20°-30°	671.3	13.1
30°-40°	820.6	16.0
40°-50°	874.6	17.1
50°-60°	836.2	16.4
60°-70°	708.4	13.9
70°-80°	476.1	9.3
80°-90°	134.3	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°	1262.8	24.7
0°-40°	2083.3	40.7
0°-60°	3794.2	74.2
0°-90°	5113.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5113.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1608	1608	1608	1608	1608	
5°	1608	1605	1598	1605	1605	153
15°	1552	1552	1550	1562	1560	438
25°	1440	1446	1456	1468	1471	664
35°	1278	1288	1309	1334	1339	801
45°	1073	1091	1129	1177	1197	827
55°	829	860	936	1009	1045	739
65°	548	604	728	824	862	544
75°	259	352	492	576	594	277
85°	51	104	127	137	142	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1608.0	1608.0	1608.0	1608.0	1608.0
2.5°	1610.5	1610.5	1602.9	1608.0	1608.0
5°	1608.0	1605.4	1597.8	1605.4	1605.4
7.5°	1600.4	1597.8	1592.8	1600.4	1597.8
10°	1585.1	1585.1	1580.1	1587.7	1587.7
12.5°	1572.5	1569.9	1567.4	1577.5	1575.0
15°	1552.2	1552.2	1549.6	1562.3	1559.8
17.5°	1526.8	1529.3	1531.9	1542.0	1544.5
20°	1498.9	1503.9	1506.5	1521.7	1521.7
22.5°	1473.5	1476.0	1481.1	1496.3	1496.3
25°	1440.5	1445.6	1455.7	1468.4	1471.0
27.5°	1407.5	1410.1	1422.7	1440.5	1443.0
30°	1364.4	1372.0	1387.2	1407.5	1410.1
32.5°	1326.3	1333.9	1351.7	1372.0	1377.1
35°	1278.1	1288.3	1308.6	1333.9	1339.0
37.5°	1235.0	1242.6	1268.0	1295.9	1303.5
40°	1181.9	1196.9	1222.3	1255.3	1268.0
42.5°	1128.7	1143.9	1174.3	1217.2	1232.4
45°	1072.8	1090.6	1128.7	1176.9	1196.9
47.5°	1017.0	1037.3	1080.4	1136.3	1159.1
50°	953.6	978.9	1032.2	1095.7	1121.0
52.5°	892.7	923.1	981.5	1052.5	1085.5
55°	829.2	859.7	935.8	1009.4	1044.9
57.5°	758.2	798.8	882.5	966.3	1004.3
60°	692.5	730.3	831.8	923.1	961.2
62.5°	621.4	672.2	781.0	877.5	915.5
65°	547.8	603.7	727.7	824.2	862.2
67.5°	481.9	542.8	674.7	770.9	808.9
70°	403.2	479.3	616.3	712.5	750.6
72.5°	329.6	413.4	555.4	649.3	684.9
75°	258.6	352.5	492.0	575.7	593.5
77.5°	192.8	291.6	426.0	461.6	448.9
80°	137.0	233.4	332.2	314.4	322.0
82.5°	88.8	177.6	205.5	233.4	240.8
85°	50.7	104.0	126.9	137.0	142.1
87.5°	22.8	38.1	50.7	50.7	48.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)