

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: P474227

Luminaire Tested: **24CZ2-70HE-RDP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474227  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-70HE-RDP-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ RDP INSERT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4836.1 lumens  
Efficiency: N/A  
Efficacy: 98.1 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

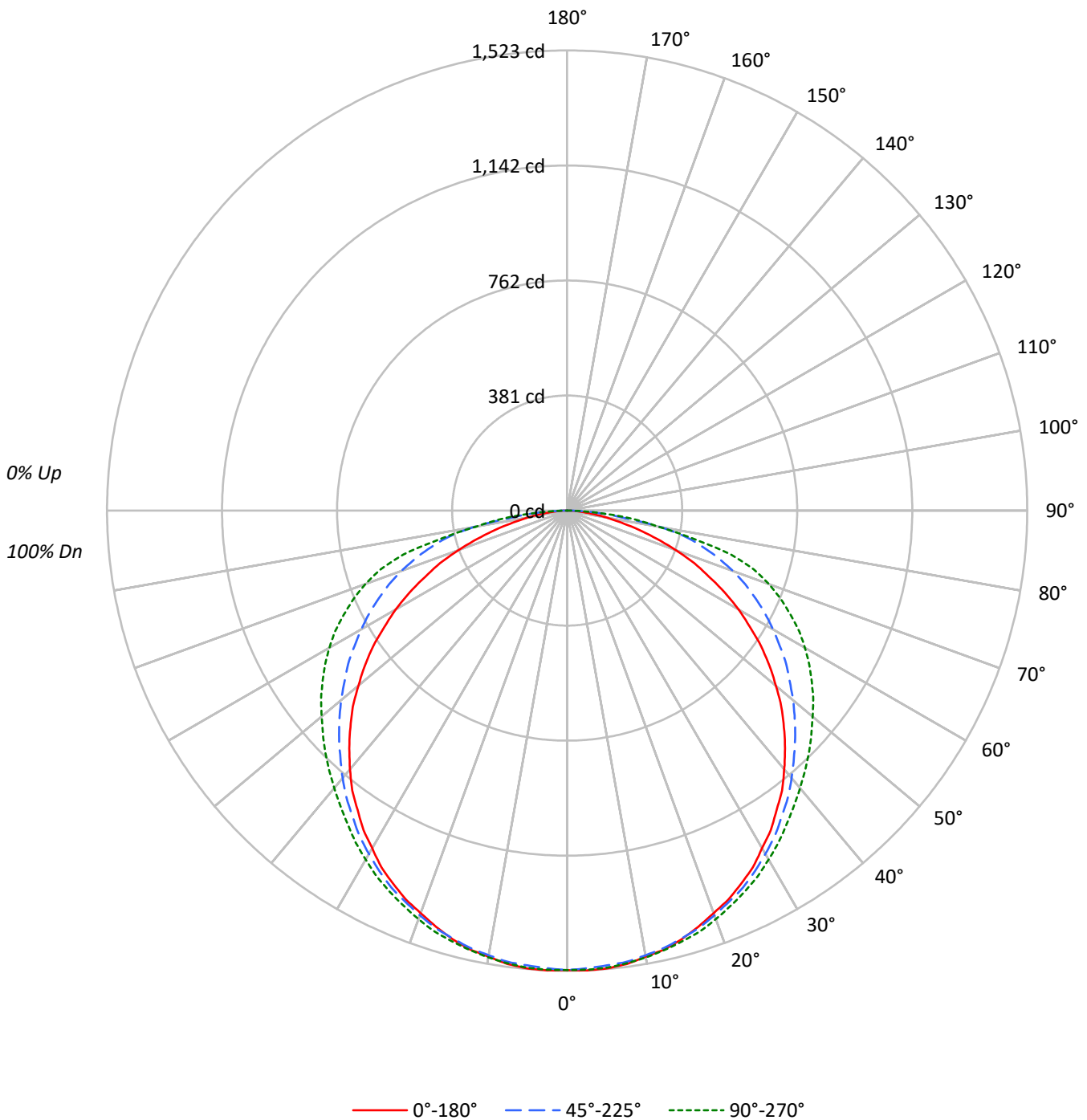
Input Watts (W): 49.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P474227

CATALOG NUMBER: 24CZ2-70HE-RDP-UNV-L835-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P474227

CATALOG NUMBER: 24CZ2-70HE-RDP-UNV-L835-CD1-U

**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°	2046	2046	2046
5°	2054	2041	2051
10°	2048	2042	2052
15°	2045	2042	2055
20°	2030	2040	2061
25°	2023	2044	2066
30°	2005	2039	2072
35°	1986	2033	2080
40°	1963	2031	2106
45°	1931	2031	2154
50°	1888	2044	2219
55°	1840	2076	2318
60°	1763	2117	2446
65°	1650	2191	2596
70°	1500	2293	2793
75°	1272	2419	2918
80°	1004	2435	2360
85°	741	1853	2075



TEST NUMBER: P474227

CATALOG NUMBER: 24CZ2-70HE-RDP-UNV-L835-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.3	3.0
10°-20°	415.2	8.6
20°-30°	634.9	13.1
30°-40°	776.1	16.0
40°-50°	827.2	17.1
50°-60°	790.9	16.4
60°-70°	670.0	13.9
70°-80°	450.3	9.3
80°-90°	127.1	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°	1194.4	24.7
0°-40°	1970.5	40.7
0°-60°	3588.7	74.2
0°-90°	4836.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4836.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1521	1521	1521	1521	1521	
5°	1521	1518	1511	1518	1518	144
15°	1468	1468	1466	1478	1475	414
25°	1362	1367	1377	1389	1391	628
35°	1209	1218	1238	1262	1266	757
45°	1015	1032	1068	1113	1132	783
55°	784	813	885	955	988	699
65°	518	571	688	780	816	514
75°	245	333	465	545	561	262
85°	48	98	120	130	134	59
90°	0	0	0	0	0	



TEST NUMBER: P474227

CATALOG NUMBER: 24CZ2-70HE-RDP-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1520.9	1520.9	1520.9	1520.9	1520.9
2.5°	1523.3	1523.3	1516.1	1520.9	1520.9
5°	1520.9	1518.5	1511.3	1518.5	1518.5
7.5°	1513.7	1511.3	1506.5	1513.7	1511.3
10°	1499.3	1499.3	1494.5	1501.7	1501.7
12.5°	1487.3	1484.9	1482.5	1492.1	1489.7
15°	1468.1	1468.1	1465.7	1477.7	1475.3
17.5°	1444.1	1446.5	1448.9	1458.5	1460.9
20°	1417.7	1422.5	1424.9	1439.3	1439.3
22.5°	1393.7	1396.1	1400.9	1415.3	1415.3
25°	1362.5	1367.3	1376.9	1388.9	1391.3
27.5°	1331.3	1333.7	1345.7	1362.5	1364.9
30°	1290.5	1297.7	1312.1	1331.3	1333.7
32.5°	1254.5	1261.7	1278.5	1297.7	1302.5
35°	1208.9	1218.5	1237.7	1261.7	1266.5
37.5°	1168.1	1175.3	1199.3	1225.7	1232.9
40°	1117.9	1132.1	1156.1	1187.3	1199.3
42.5°	1067.5	1081.9	1110.7	1151.3	1165.7
45°	1014.7	1031.5	1067.5	1113.1	1132.1
47.5°	961.9	981.1	1021.9	1074.7	1096.3
50°	901.9	925.9	976.3	1036.3	1060.3
52.5°	844.3	873.1	928.3	995.5	1026.7
55°	784.3	813.1	885.1	954.7	988.3
57.5°	717.1	755.5	834.7	913.9	949.9
60°	655.0	690.7	786.7	873.1	909.1
62.5°	587.8	635.8	738.7	829.9	865.9
65°	518.2	571.0	688.3	779.5	815.5
67.5°	455.8	513.4	638.2	729.1	765.1
70°	381.4	453.4	583.0	673.9	709.9
72.5°	311.8	391.0	525.4	614.2	647.8
75°	244.6	333.4	465.4	544.6	561.4
77.5°	182.4	275.8	403.0	436.6	424.6
80°	129.6	220.8	314.2	297.4	304.6
82.5°	84.0	168.0	194.4	220.8	227.8
85°	48.0	98.4	120.0	129.6	134.4
87.5°	21.6	36.0	48.0	48.0	45.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)