

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: P474018

Luminaire Tested: **24CZ2-65-S-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474018
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65-S-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

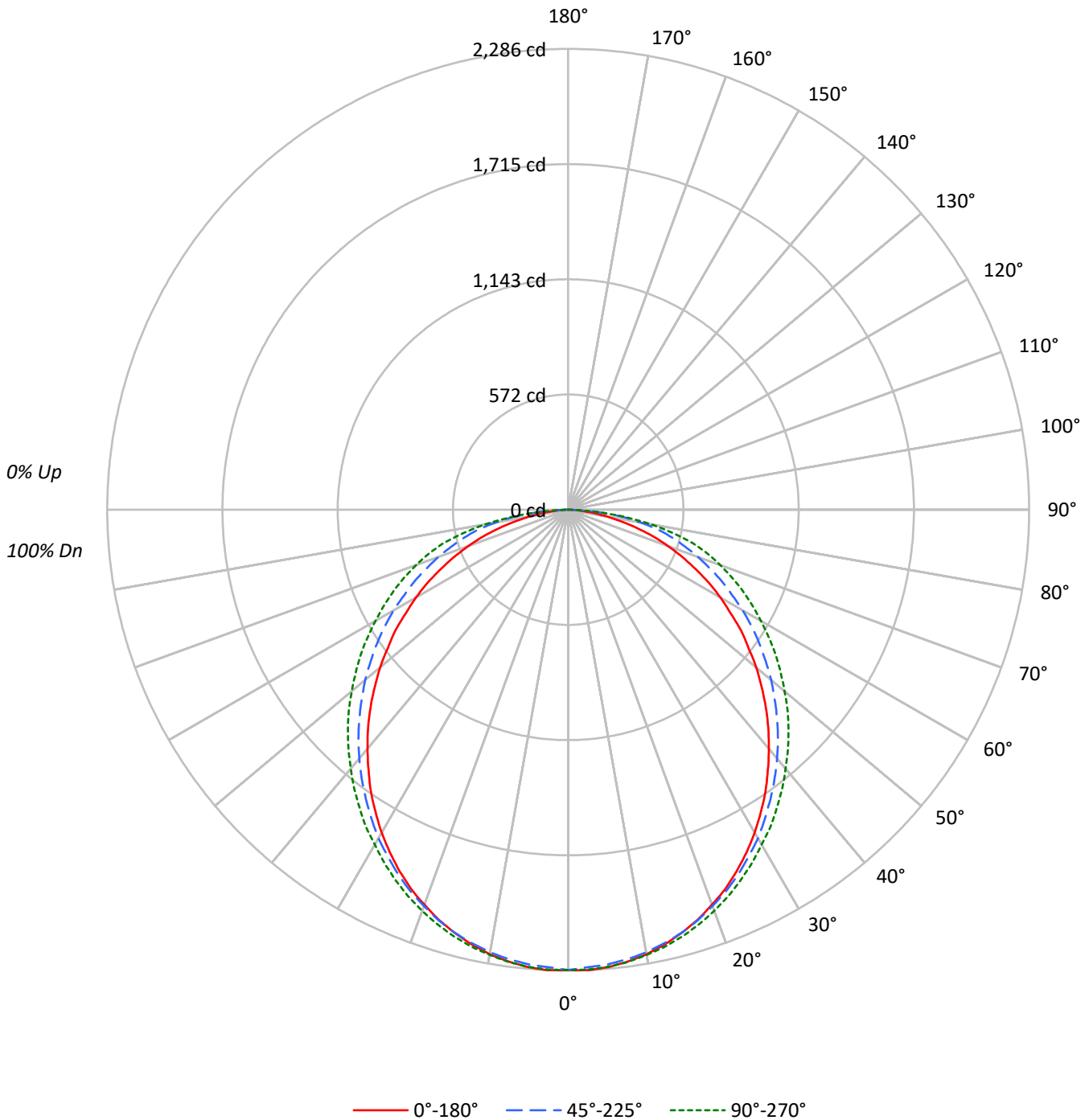
Lumens per Lamp: N/A
Luminaire Lumens: 6541.3 lumens
Efficiency: N/A
Efficacy: 128.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 51
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: P474018
CATALOG NUMBER: 24CZ2-65-S-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474018

CATALOG NUMBER: 24CZ2-65-S-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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3072	3072	3072
5°	3076	3058	3074
10°	3059	3046	3064
15°	3028	3026	3052
20°	2986	2995	3032
25°	2937	2962	3008
30°	2875	2925	2980
35°	2803	2873	2963
40°	2719	2831	2946
45°	2637	2787	2940
50°	2548	2748	2933
55°	2457	2715	2949
60°	2345	2689	2969
65°	2220	2678	3041
70°	2071	2692	3149
75°	1843	2770	3318
80°	1507	2830	3239
85°	1062	2472	2521



TEST NUMBER: P474018

CATALOG NUMBER: 24CZ2-65-S-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.9	3.3
10°-20°	614.8	9.4
20°-30°	921.6	14.1
30°-40°	1097.6	16.8
40°-50°	1131.7	17.3
50°-60°	1032.7	15.8
60°-70°	825.8	12.6
70°-80°	539.4	8.2
80°-90°	162.0	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°	1752.2	26.8
0°-40°	2849.8	43.6
0°-60°	5014.2	76.7
0°-90°	6541.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6541.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2283	2283	2283	2283	2283	
5°	2278	2274	2264	2278	2276	216
15°	2174	2175	2172	2191	2191	613
25°	1978	1981	1995	2024	2026	911
35°	1706	1718	1749	1793	1804	1066
45°	1386	1411	1464	1526	1545	1069
55°	1048	1078	1157	1234	1257	933
65°	697	745	841	924	955	691
75°	355	414	533	619	638	377
85°	69	124	160	163	163	87
90°	0	0	0	0	0	



TEST NUMBER: P474018

CATALOG NUMBER: 24CZ2-65-S-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2283.2	2283.2	2283.2	2283.2	2283.2
2.5°	2286.4	2283.2	2271.4	2285.4	2283.2
5°	2277.8	2273.5	2263.9	2277.8	2275.7
7.5°	2260.6	2258.5	2248.8	2264.9	2262.8
10°	2239.2	2237.0	2229.5	2245.6	2242.4
12.5°	2209.1	2208.0	2202.6	2222.0	2219.8
15°	2173.6	2174.7	2172.5	2190.8	2190.8
17.5°	2132.8	2131.7	2136.0	2158.6	2156.4
20°	2085.5	2086.6	2092.0	2117.7	2117.7
22.5°	2036.1	2035.0	2046.8	2072.6	2074.8
25°	1978.1	1981.3	1995.3	2024.3	2026.4
27.5°	1915.7	1921.1	1938.3	1971.6	1974.8
30°	1850.2	1856.7	1882.4	1913.6	1917.9
32.5°	1778.2	1792.2	1815.8	1855.6	1866.3
35°	1706.2	1718.0	1749.2	1793.3	1804.0
37.5°	1626.7	1646.1	1681.5	1729.9	1743.8
40°	1548.3	1567.6	1611.7	1662.2	1677.2
42.5°	1468.8	1489.2	1539.7	1596.6	1612.8
45°	1386.0	1410.8	1464.5	1525.7	1545.1
47.5°	1301.2	1330.2	1388.2	1454.8	1476.3
50°	1217.4	1246.4	1313.0	1381.7	1401.1
52.5°	1127.1	1163.6	1234.5	1308.7	1328.0
55°	1047.6	1077.7	1157.2	1233.5	1257.1
57.5°	954.1	994.9	1079.8	1157.2	1179.7
60°	871.4	909.0	999.2	1077.7	1103.5
62.5°	787.6	826.3	916.5	1005.7	1029.3
65°	697.3	744.6	841.3	924.0	955.2
67.5°	611.4	660.8	759.6	847.7	880.0
70°	526.5	577.0	684.4	774.7	800.5
72.5°	442.7	495.3	607.1	695.2	725.3
75°	354.6	413.7	532.9	618.9	638.2
77.5°	271.8	337.4	457.7	515.7	529.7
80°	194.5	266.5	365.3	407.2	418.0
82.5°	127.9	197.7	272.9	295.5	292.3
85°	68.8	123.6	160.1	163.3	163.3
87.5°	26.9	49.4	50.5	38.7	36.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)