

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: P473826

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

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473826  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-65HE-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

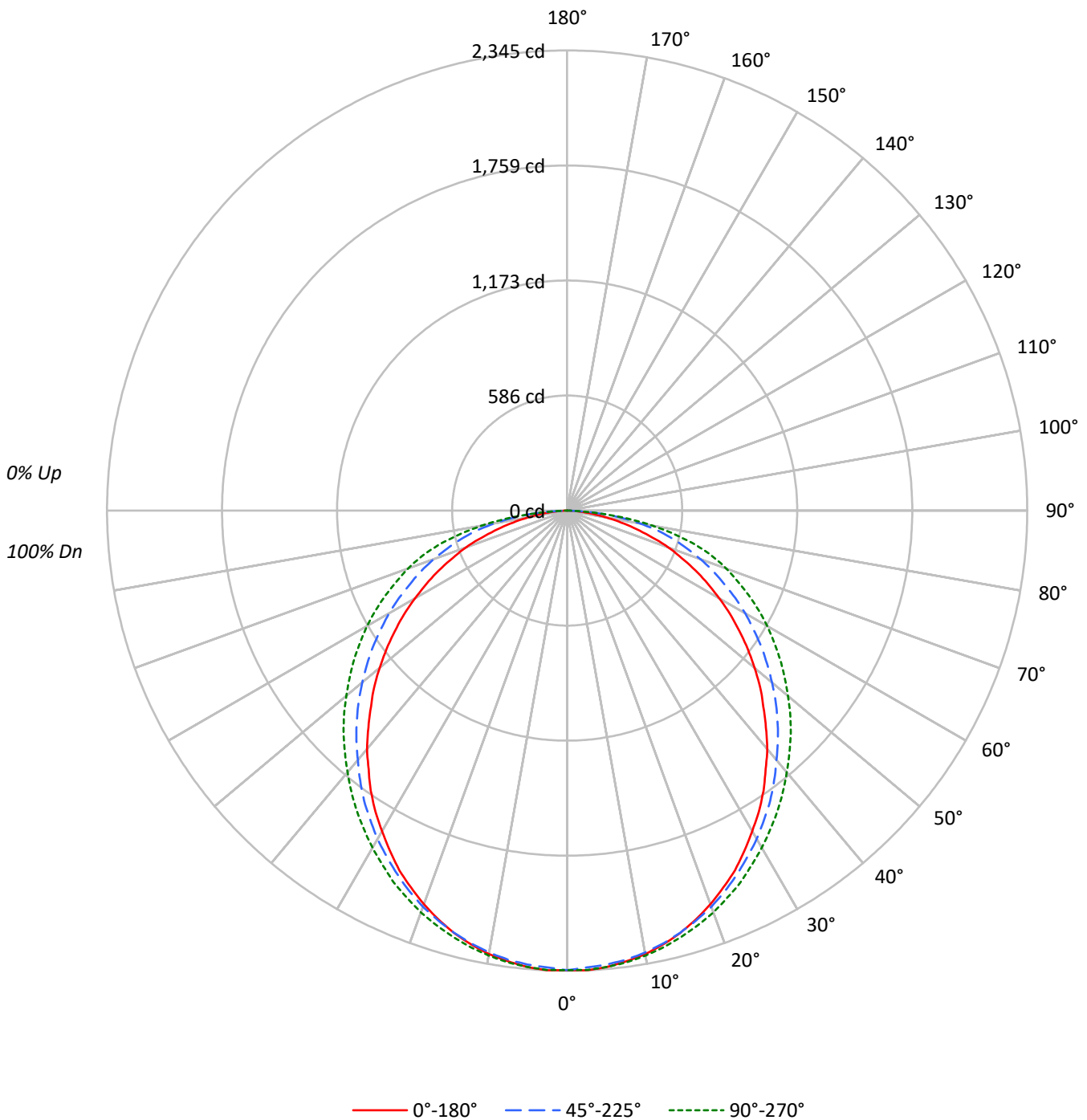
Lumens per Lamp: N/A  
Luminaire Lumens: 6776.9 lumens  
Efficiency: N/A  
Efficacy: 138.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 48.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3151	3151	3151
5°	3153	3136	3153
10°	3135	3125	3146
15°	3103	3102	3132
20°	3057	3076	3120
25°	3004	3038	3104
30°	2931	3002	3082
35°	2865	2964	3070
40°	2786	2915	3058
45°	2692	2885	3067
50°	2610	2853	3076
55°	2514	2833	3110
60°	2410	2820	3167
65°	2297	2809	3249
70°	2162	2838	3398
75°	1901	2897	3535
80°	1586	2918	3410
85°	1133	2501	2535



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	221.4	3.3
10°-20°	630.6	9.3
20°-30°	946.0	14.0
30°-40°	1129.4	16.7
40°-50°	1169.9	17.3
50°-60°	1077.0	15.9
60°-70°	868.7	12.8
70°-80°	567.6	8.4
80°-90°	166.4	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°	1797.9	26.5
0°-40°	2927.3	43.2
0°-60°	5174.1	76.3
0°-90°	6776.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6776.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2342	2342	2342	2342	2342	
5°	2334	2332	2322	2335	2334	222
15°	2228	2228	2227	2249	2249	628
25°	2023	2028	2046	2084	2091	930
35°	1744	1759	1804	1854	1869	1089
45°	1414	1450	1516	1584	1612	1093
55°	1072	1118	1208	1296	1326	959
65°	722	771	882	983	1020	713
75°	366	435	557	654	680	390
85°	73	127	162	172	164	91
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2341.8	2341.8	2341.8	2341.8	2341.8
2.5°	2345.1	2341.8	2329.8	2344.0	2342.9
5°	2334.2	2332.0	2322.1	2335.3	2334.2
7.5°	2316.7	2315.6	2307.9	2322.1	2322.1
10°	2294.8	2292.6	2287.1	2303.5	2302.4
12.5°	2264.1	2263.0	2259.7	2279.4	2278.3
15°	2228.0	2228.0	2226.9	2248.8	2248.8
17.5°	2184.2	2185.3	2189.7	2214.8	2215.9
20°	2134.9	2139.3	2148.1	2176.5	2178.7
22.5°	2079.1	2087.8	2099.9	2131.6	2134.9
25°	2023.2	2027.6	2046.2	2083.5	2091.1
27.5°	1955.4	1966.3	1990.4	2028.7	2036.4
30°	1886.4	1901.7	1932.4	1971.8	1983.8
32.5°	1818.5	1831.7	1867.8	1912.7	1926.9
35°	1744.1	1759.4	1804.3	1853.5	1868.9
37.5°	1662.0	1686.0	1733.1	1790.0	1806.5
40°	1586.4	1608.3	1659.8	1723.3	1740.8
42.5°	1499.9	1527.3	1589.7	1654.3	1676.2
45°	1414.5	1449.6	1516.3	1584.2	1611.6
47.5°	1334.6	1363.1	1441.9	1518.5	1542.6
50°	1247.0	1279.9	1363.1	1444.1	1469.3
52.5°	1160.5	1199.9	1284.2	1369.6	1397.0
55°	1071.8	1117.8	1207.6	1296.3	1325.8
57.5°	986.4	1032.4	1125.5	1219.6	1250.3
60°	895.6	944.8	1047.8	1138.6	1176.9
62.5°	808.0	857.3	965.6	1064.2	1100.3
65°	721.5	770.8	882.4	983.2	1020.4
67.5°	631.7	685.4	804.7	902.1	938.3
70°	549.6	601.1	721.5	825.5	863.8
72.5°	455.4	516.8	639.4	742.3	778.4
75°	365.7	434.6	557.3	653.6	679.9
77.5°	282.5	351.4	474.1	546.3	562.7
80°	204.7	274.8	376.6	427.0	440.1
82.5°	132.5	204.7	272.6	306.6	310.9
85°	73.4	127.0	162.0	171.9	164.2
87.5°	26.3	48.2	47.1	38.3	30.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)