

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: P474141

Luminaire Tested: **24CZ2-85VHE-S-UNV-L850-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474141
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-85VHE-S-UNV-L850-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8826.5 lumens
Efficiency: N/A
Efficacy: 147.8 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

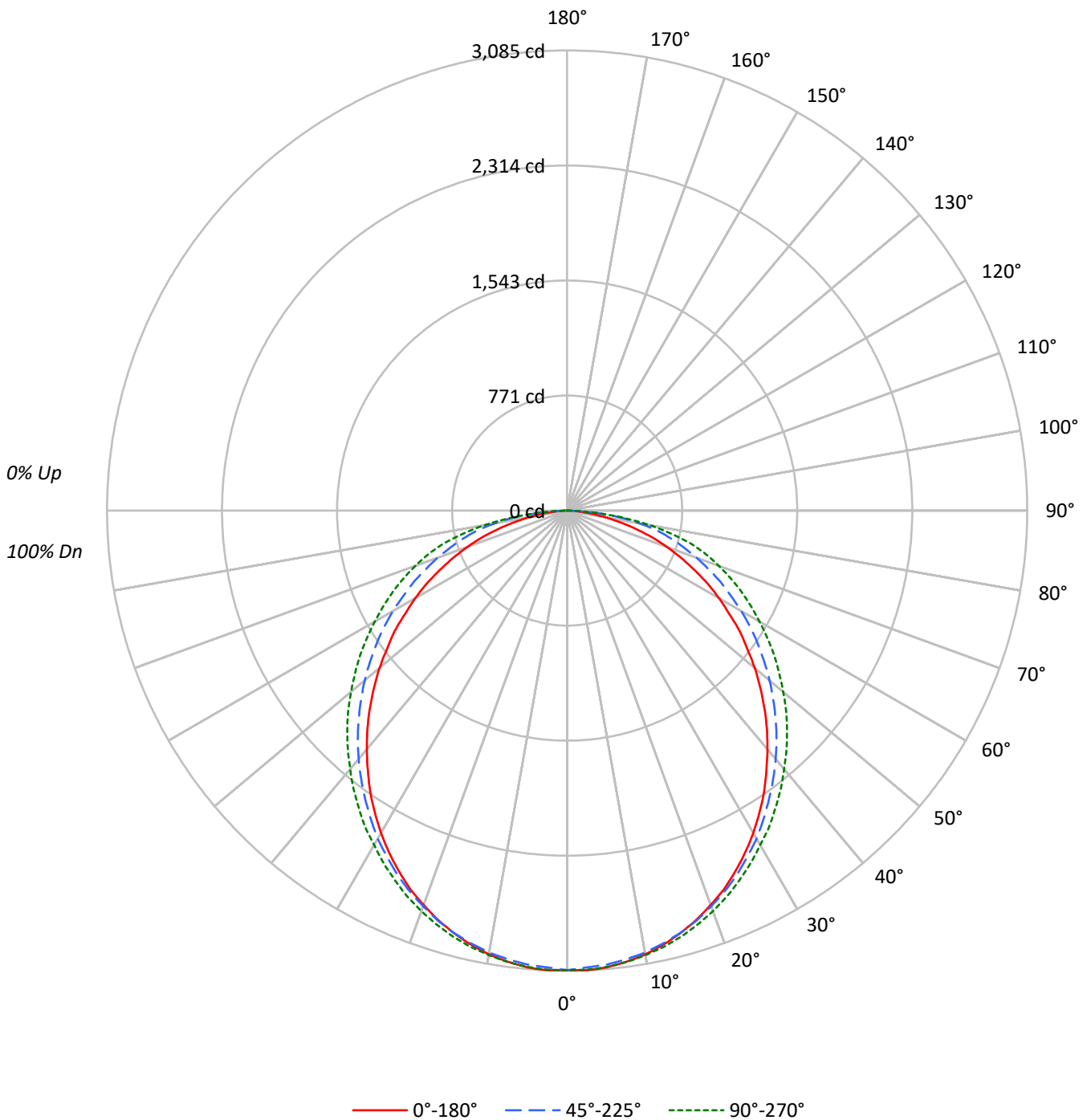
Input Watts (W): 59.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	4145	4145	4145
5°	4151	4126	4147
10°	4128	4110	4134
15°	4086	4083	4118
20°	4029	4042	4092
25°	3963	3997	4059
30°	3879	3946	4021
35°	3782	3877	3998
40°	3669	3820	3975
45°	3559	3760	3967
50°	3438	3709	3957
55°	3316	3663	3979
60°	3164	3628	4007
65°	2996	3614	4103
70°	2795	3633	4249
75°	2487	3738	4477
80°	2033	3819	4370
85°	1433	3335	3402



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.3	3.3
10°-20°	829.6	9.4
20°-30°	1243.5	14.1
30°-40°	1481.0	16.8
40°-50°	1527.1	17.3
50°-60°	1393.5	15.8
60°-70°	1114.3	12.6
70°-80°	727.8	8.2
80°-90°	218.5	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°	2364.3	26.8
0°-40°	3845.3	43.6
0°-60°	6765.9	76.7
0°-90°	8826.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8826.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3081	3081	3081	3081	3081	
5°	3074	3068	3055	3074	3071	292
15°	2933	2934	2932	2956	2956	827
25°	2669	2673	2692	2731	2734	1229
35°	2302	2318	2360	2420	2434	1438
45°	1870	1904	1976	2059	2085	1442
55°	1414	1454	1561	1664	1696	1259
65°	941	1005	1135	1247	1289	933
75°	478	558	719	835	861	508
85°	93	167	216	220	220	118
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3080.8	3080.8	3080.8	3080.8	3080.8
2.5°	3085.2	3080.8	3064.9	3083.7	3080.8
5°	3073.6	3067.8	3054.7	3073.6	3070.7
7.5°	3050.4	3047.5	3034.4	3056.2	3053.3
10°	3021.4	3018.5	3008.3	3030.1	3025.7
12.5°	2980.8	2979.3	2972.1	2998.2	2995.3
15°	2933.0	2934.4	2931.5	2956.2	2956.2
17.5°	2877.9	2876.4	2882.2	2912.7	2909.8
20°	2814.1	2815.5	2822.8	2857.6	2857.6
22.5°	2747.4	2745.9	2761.9	2796.7	2799.6
25°	2669.1	2673.4	2692.3	2731.4	2734.3
27.5°	2585.0	2592.3	2615.4	2660.4	2664.7
30°	2496.6	2505.3	2540.1	2582.1	2587.9
32.5°	2399.4	2418.3	2450.2	2503.8	2518.3
35°	2302.3	2318.2	2360.3	2419.7	2434.2
37.5°	2195.0	2221.1	2268.9	2334.2	2353.0
40°	2089.2	2115.3	2174.7	2242.8	2263.1
42.5°	1981.9	2009.4	2077.6	2154.4	2176.2
45°	1870.2	1903.6	1976.1	2058.7	2084.8
47.5°	1755.7	1794.9	1873.1	1963.0	1992.0
50°	1642.6	1681.8	1771.7	1864.4	1890.5
52.5°	1520.8	1570.1	1665.8	1765.9	1792.0
55°	1413.6	1454.2	1561.4	1664.4	1696.3
57.5°	1287.4	1342.5	1457.1	1561.4	1591.9
60°	1175.8	1226.5	1348.3	1454.2	1489.0
62.5°	1062.7	1114.9	1236.7	1357.0	1388.9
65°	940.9	1004.7	1135.2	1246.8	1288.9
67.5°	824.9	891.6	1025.0	1143.9	1187.4
70°	710.4	778.5	923.5	1045.3	1080.1
72.5°	597.3	668.4	819.1	938.0	978.6
75°	478.4	558.2	719.1	835.1	861.2
77.5°	366.8	455.2	617.6	695.9	714.8
80°	262.4	359.6	492.9	549.5	564.0
82.5°	172.5	266.8	368.3	398.7	394.3
85°	92.8	166.7	216.0	220.4	220.4
87.5°	36.2	66.7	68.1	52.2	49.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)