

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: P474928

Luminaire Tested: **22CZ2-80VHE-S-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474928
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-80VHE-S-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8177.8 lumens
Efficiency: N/A
Efficacy: 139.3 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

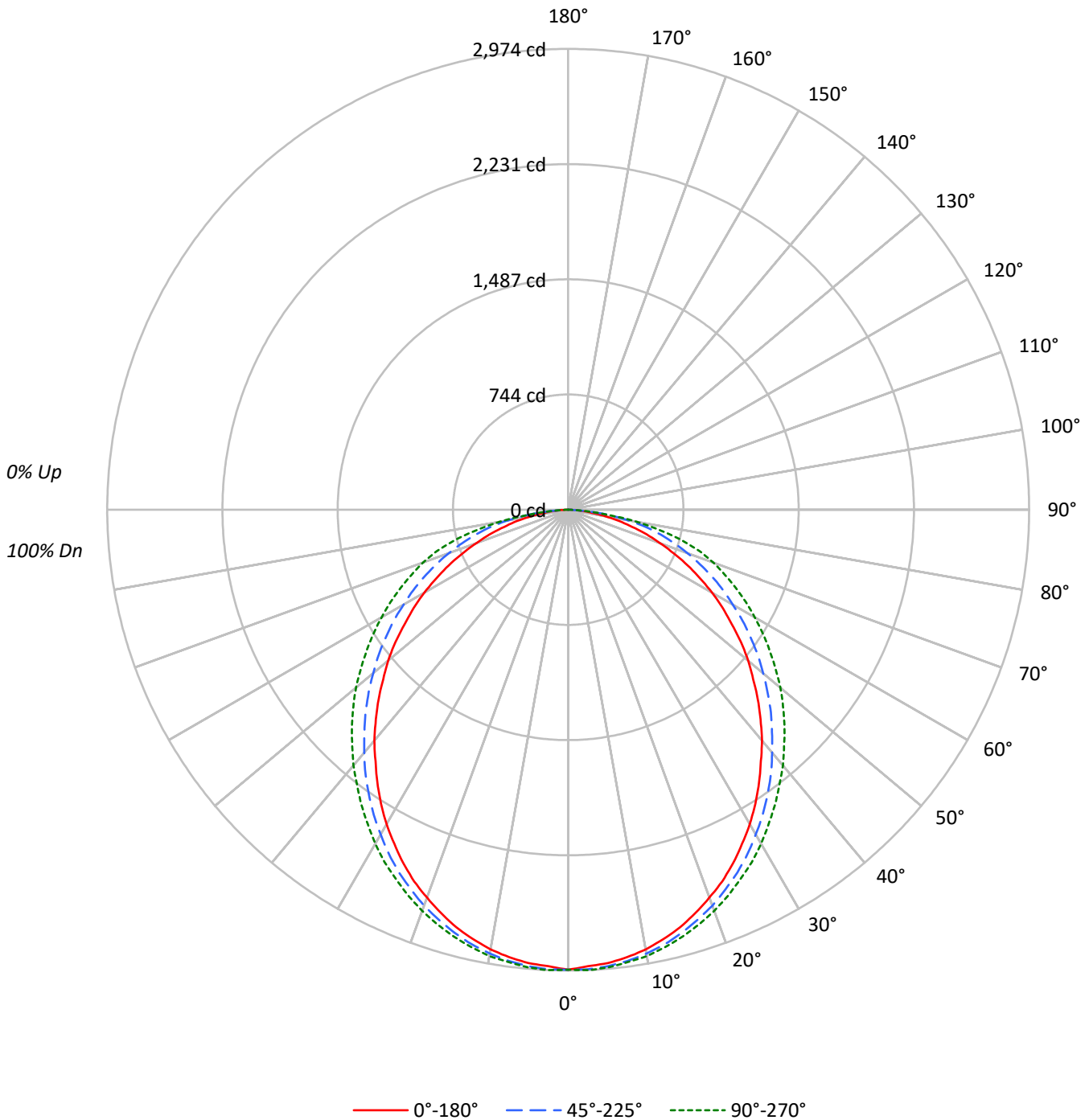
Input Watts (W): 58.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	88	86	83				83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69				69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58				58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50				50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43				43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38				38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33				33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30				30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27				27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24				24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7988	7988	7988
5°	7933	7987	8008
10°	7874	7949	7993
15°	7774	7879	7945
20°	7628	7787	7889
25°	7474	7668	7809
30°	7281	7521	7736
35°	7054	7366	7639
40°	6834	7188	7571
45°	6583	7034	7509
50°	6346	6877	7482
55°	6044	6741	7446
60°	5773	6604	7477
65°	5419	6527	7586
70°	4951	6446	7832
75°	4445	6399	7839
80°	3741	6042	6961
85°	2810	4094	3788



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.4	3.4
10°-20°	796.3	9.7
20°-30°	1187.2	14.5
30°-40°	1400.9	17.1
40°-50°	1427.3	17.5
50°-60°	1287.2	15.7
60°-70°	1010.9	12.4
70°-80°	632.0	7.7
80°-90°	155.8	1.9
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°	2263.9	27.7
0°-40°	3664.7	44.8
0°-60°	6379.2	78.0
0°-90°	8177.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8177.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2968	2968	2968	2968	2968	
5°	2937	2943	2957	2963	2965	279
15°	2790	2800	2828	2848	2852	786
25°	2517	2531	2583	2620	2630	1158
35°	2147	2177	2242	2304	2325	1343
45°	1730	1759	1848	1938	1973	1334
55°	1288	1330	1437	1548	1587	1156
65°	851	896	1025	1140	1191	840
75°	428	487	616	720	754	457
85°	91	117	133	131	123	111
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2968.5	2968.5	2968.5	2968.5	2968.5
2.5°	2948.8	2954.7	2968.5	2974.5	2974.5
5°	2936.9	2942.8	2956.7	2962.6	2964.6
7.5°	2913.1	2921.0	2936.9	2944.8	2944.8
10°	2881.5	2891.4	2909.2	2921.0	2925.0
12.5°	2837.9	2849.8	2873.5	2887.4	2891.4
15°	2790.4	2800.3	2828.0	2847.8	2851.8
17.5°	2729.1	2744.9	2774.6	2800.3	2806.3
20°	2663.8	2681.6	2719.2	2748.9	2754.8
22.5°	2596.5	2610.3	2651.9	2687.5	2695.4
25°	2517.3	2531.2	2582.6	2620.2	2630.1
27.5°	2430.2	2454.0	2505.4	2549.0	2564.8
30°	2343.2	2366.9	2420.4	2471.8	2489.6
32.5°	2248.2	2273.9	2335.3	2388.7	2406.5
35°	2147.2	2176.9	2242.2	2303.6	2325.4
37.5°	2042.4	2076.0	2149.2	2214.5	2238.3
40°	1945.4	1969.1	2046.3	2121.5	2155.2
42.5°	1836.5	1868.2	1945.4	2030.5	2062.1
45°	1729.7	1759.4	1848.4	1937.5	1973.1
47.5°	1618.8	1656.4	1745.5	1844.5	1880.1
50°	1515.9	1547.6	1642.6	1747.5	1787.1
52.5°	1405.1	1438.8	1541.7	1650.5	1686.1
55°	1288.3	1329.9	1436.8	1547.6	1587.2
57.5°	1181.5	1221.1	1333.9	1448.6	1490.2
60°	1072.6	1112.2	1227.0	1343.8	1389.3
62.5°	957.8	1003.4	1128.0	1240.8	1292.3
65°	851.0	896.5	1025.1	1139.9	1191.4
67.5°	738.2	791.6	920.2	1041.0	1092.4
70°	629.3	692.7	819.3	938.1	995.5
72.5°	532.4	583.8	716.4	841.1	888.6
75°	427.5	486.8	615.5	720.4	754.0
77.5°	338.4	389.9	512.6	581.8	603.6
80°	241.4	298.8	389.9	431.4	449.2
82.5°	160.3	207.8	265.2	273.1	269.1
85°	91.0	116.8	132.6	130.6	122.7
87.5°	35.6	39.6	29.7	17.8	13.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)