

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: P474900

Luminaire Tested: **22CZ2-85VHE-S-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474900
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-85VHE-S-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8433.0 lumens
Efficiency: N/A
Efficacy: 133.6 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

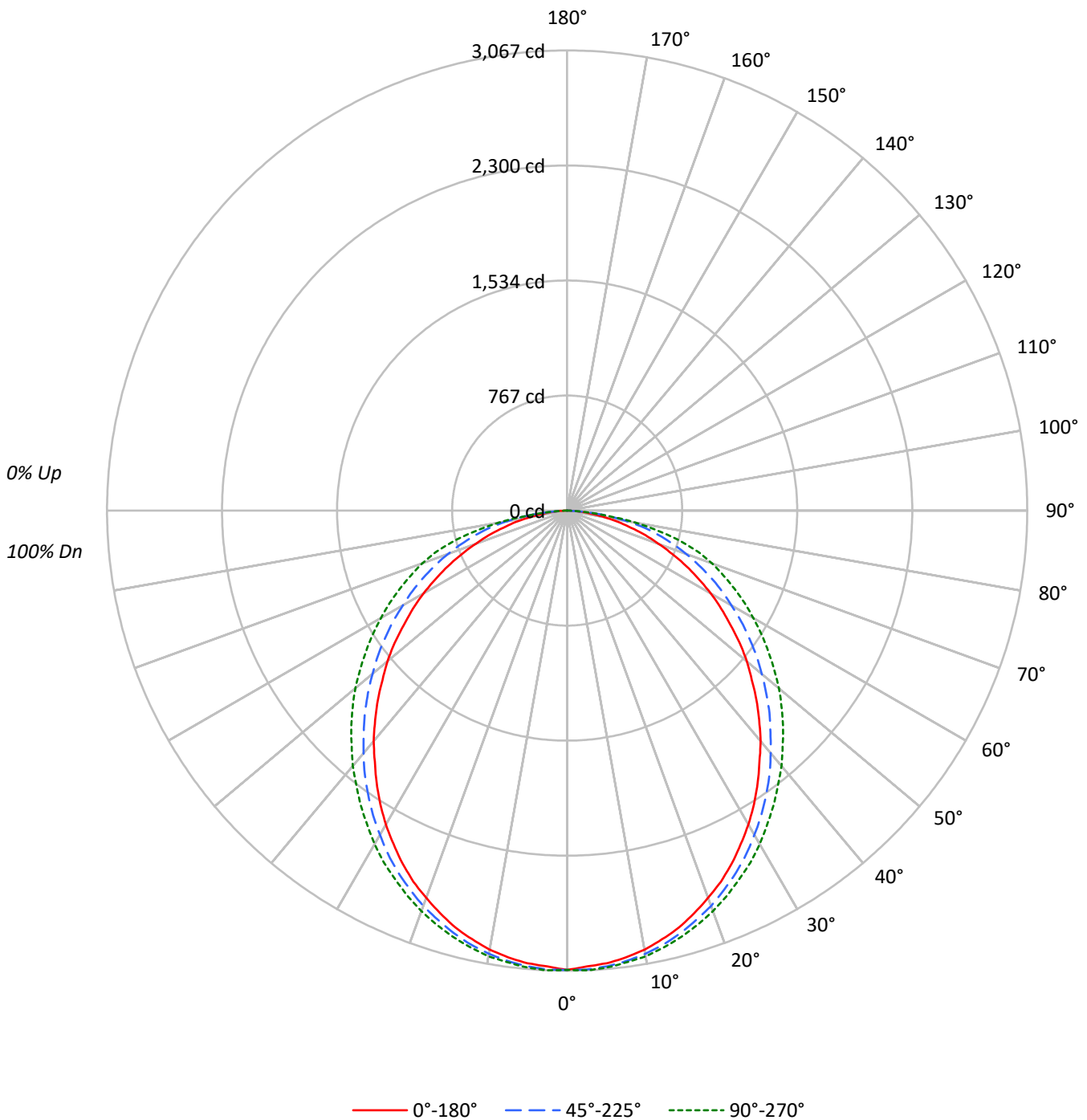
Input Watts (W): 63.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8238	8238	8238
5°	8181	8236	8258
10°	8119	8197	8242
15°	8016	8125	8193
20°	7866	8030	8135
25°	7708	7907	8053
30°	7508	7755	7977
35°	7274	7596	7877
40°	7047	7413	7807
45°	6788	7254	7743
50°	6544	7091	7715
55°	6233	6951	7679
60°	5953	6810	7710
65°	5587	6731	7822
70°	5106	6648	8076
75°	4583	6599	8084
80°	3859	6230	7180
85°	2899	4221	3906



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.1	3.4
10°-20°	821.1	9.7
20°-30°	1224.2	14.5
30°-40°	1444.6	17.1
40°-50°	1471.8	17.5
50°-60°	1327.3	15.7
60°-70°	1042.4	12.4
70°-80°	651.7	7.7
80°-90°	160.6	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°	2334.5	27.7
0°-40°	3779.1	44.8
0°-60°	6578.2	78.0
0°-90°	8433.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8433.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3061	3061	3061	3061	3061	
5°	3028	3035	3049	3055	3057	287
15°	2878	2888	2916	2937	2941	810
25°	2596	2610	2663	2702	2712	1194
35°	2214	2245	2312	2376	2398	1385
45°	1784	1814	1906	1998	2035	1376
55°	1328	1371	1482	1596	1637	1192
65°	878	924	1057	1176	1228	867
75°	441	502	635	743	778	471
85°	94	120	137	135	126	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3061.2	3061.2	3061.2	3061.2	3061.2
2.5°	3040.8	3046.9	3061.2	3067.3	3067.3
5°	3028.5	3034.6	3048.9	3055.0	3057.1
7.5°	3004.0	3012.2	3028.5	3036.7	3036.7
10°	2971.4	2981.6	2999.9	3012.2	3016.3
12.5°	2926.5	2938.7	2963.2	2977.5	2981.6
15°	2877.5	2887.7	2916.3	2936.7	2940.8
17.5°	2814.2	2830.6	2861.2	2887.7	2893.8
20°	2746.9	2765.3	2804.0	2834.6	2840.8
22.5°	2677.5	2691.8	2734.6	2771.4	2779.5
25°	2595.9	2610.2	2663.2	2702.0	2712.2
27.5°	2506.1	2530.6	2583.6	2628.5	2644.8
30°	2416.3	2440.8	2495.9	2548.9	2567.3
32.5°	2318.3	2344.9	2408.1	2463.2	2481.6
35°	2214.2	2244.9	2312.2	2375.5	2397.9
37.5°	2106.1	2140.8	2216.3	2283.6	2308.1
40°	2006.1	2030.6	2110.2	2187.7	2222.4
42.5°	1893.8	1926.5	2006.1	2093.8	2126.5
45°	1783.6	1814.3	1906.1	1997.9	2034.7
47.5°	1669.4	1708.1	1800.0	1902.0	1938.7
50°	1563.2	1595.9	1693.8	1802.0	1842.8
52.5°	1449.0	1483.6	1589.8	1702.0	1738.7
55°	1328.5	1371.4	1481.6	1595.9	1636.7
57.5°	1218.3	1259.2	1375.5	1493.9	1536.7
60°	1106.1	1146.9	1265.3	1385.7	1432.6
62.5°	987.7	1034.7	1163.2	1279.6	1332.6
65°	877.5	924.5	1057.1	1175.5	1228.5
67.5°	761.2	816.3	949.0	1073.4	1126.5
70°	649.0	714.3	844.9	967.3	1026.5
72.5°	549.0	602.0	738.8	867.3	916.3
75°	440.8	502.0	634.7	742.8	777.5
77.5°	349.0	402.0	528.6	600.0	622.4
80°	249.0	308.2	402.0	444.9	463.3
82.5°	165.3	214.3	273.5	281.6	277.5
85°	93.9	120.4	136.7	134.7	126.5
87.5°	36.7	40.8	30.6	18.4	14.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)