

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: P474785

Luminaire Tested: **22CZ2-90VHE-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474785
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-90VHE-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

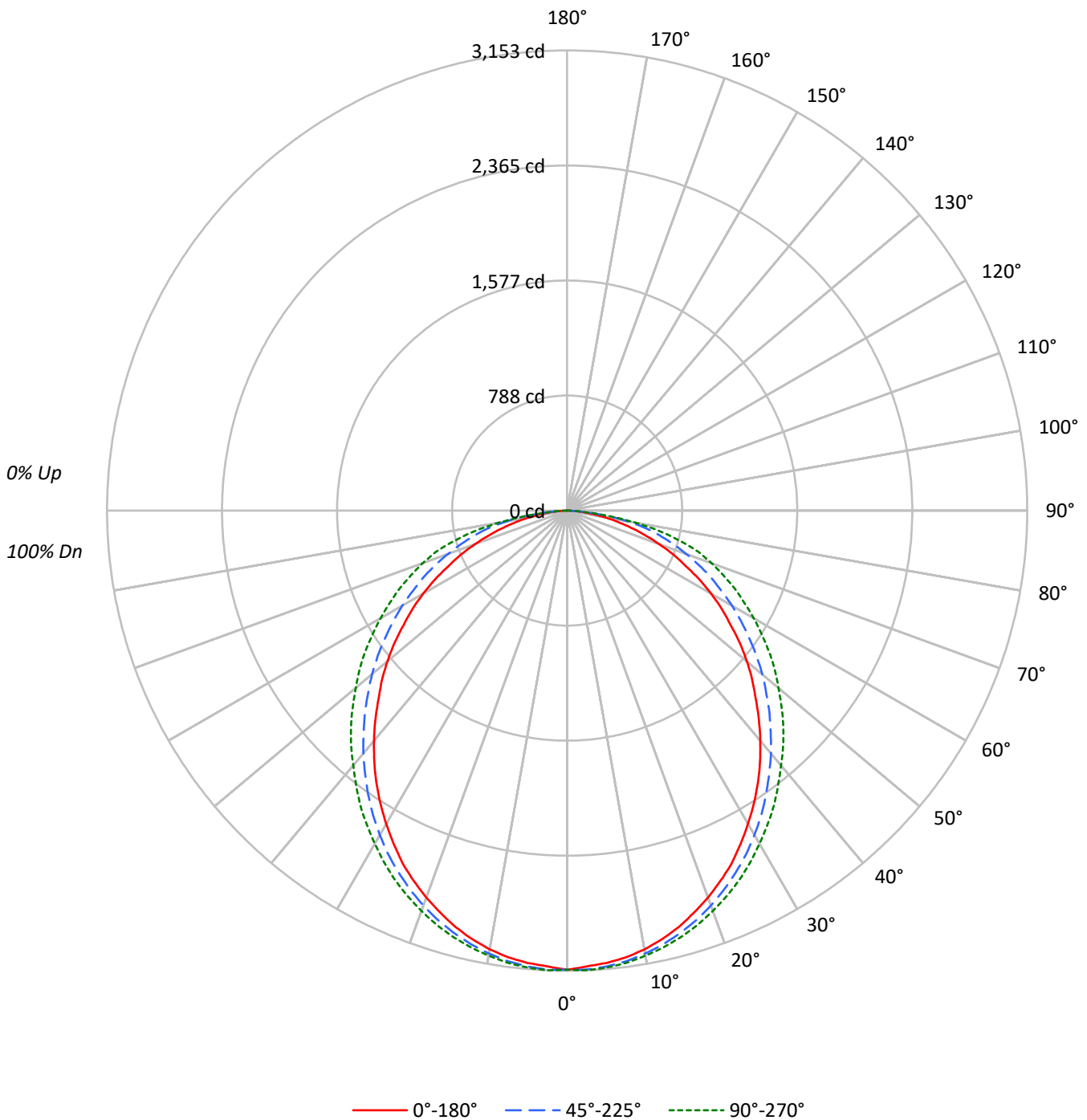
Lumens per Lamp: N/A
Luminaire Lumens: 8675.0 lumens
Efficiency: N/A
Efficacy: 130.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 66.7
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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	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	73	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	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8466	8466	8466
5°	8404	8468	8488
10°	8341	8421	8461
15°	8228	8346	8422
20°	8080	8248	8358
25°	7920	8122	8291
30°	7702	7975	8192
35°	7486	7805	8113
40°	7232	7632	8012
45°	6956	7458	7975
50°	6731	7307	7913
55°	6417	7148	7930
60°	6127	7025	7953
65°	5697	6934	8078
70°	5265	6837	8279
75°	4708	6805	8330
80°	3949	6450	7273
85°	3057	4415	4131



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.2	3.4
10°-20°	843.8	9.7
20°-30°	1258.1	14.5
30°-40°	1485.2	17.1
40°-50°	1513.7	17.4
50°-60°	1365.0	15.7
60°-70°	1072.9	12.4
70°-80°	671.7	7.7
80°-90°	167.5	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°	2399.0	27.7
0°-40°	3884.2	44.8
0°-60°	6762.9	78.0
0°-90°	8675.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8675.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3146	3146	3146	3146	3146	
5°	3111	3118	3135	3142	3142	295
15°	2954	2966	2996	3018	3023	832
25°	2668	2688	2735	2778	2792	1226
35°	2279	2308	2376	2442	2470	1424
45°	1828	1868	1960	2055	2096	1414
55°	1368	1410	1524	1641	1690	1228
65°	895	950	1089	1210	1269	892
75°	453	521	654	772	801	481
85°	99	126	143	143	134	119
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3146.0	3146.0	3146.0	3146.0	3146.0
2.5°	3125.8	3133.2	3147.8	3153.3	3153.3
5°	3111.2	3118.5	3135.0	3142.3	3142.3
7.5°	3087.3	3094.7	3114.8	3124.0	3125.8
10°	3052.5	3061.7	3081.8	3096.5	3096.5
12.5°	3008.5	3017.7	3043.3	3061.7	3063.5
15°	2953.5	2966.3	2995.7	3017.7	3023.2
17.5°	2889.3	2909.5	2942.5	2970.0	2975.5
20°	2821.5	2841.7	2880.2	2911.3	2918.7
22.5°	2746.3	2764.7	2810.5	2849.0	2858.2
25°	2667.5	2687.7	2735.3	2777.5	2792.2
27.5°	2574.0	2597.8	2654.7	2702.3	2717.0
30°	2478.7	2508.0	2566.7	2619.8	2636.3
32.5°	2381.5	2409.0	2475.0	2531.8	2553.8
35°	2278.8	2308.2	2376.0	2442.0	2469.5
37.5°	2170.7	2200.0	2273.3	2348.5	2374.2
40°	2058.8	2093.7	2172.5	2253.2	2280.7
42.5°	1945.2	1981.8	2064.3	2154.2	2190.8
45°	1827.8	1868.2	1959.8	2055.2	2095.5
47.5°	1721.5	1754.5	1849.8	1954.3	1992.8
50°	1607.8	1639.0	1745.3	1849.8	1890.2
52.5°	1492.3	1521.7	1635.3	1745.3	1794.8
55°	1367.7	1409.8	1523.5	1640.8	1690.3
57.5°	1257.7	1296.2	1413.5	1532.7	1580.3
60°	1138.5	1178.8	1305.3	1426.3	1477.7
62.5°	1019.3	1063.3	1191.7	1321.8	1369.5
65°	894.7	949.7	1089.0	1210.0	1268.7
67.5°	788.3	841.5	979.0	1105.5	1156.8
70°	669.2	731.5	869.0	997.3	1052.3
72.5°	557.3	619.7	760.8	889.2	944.2
75°	452.8	520.7	654.5	771.8	801.2
77.5°	352.0	416.2	550.0	617.8	649.0
80°	254.8	317.2	416.2	462.0	469.3
82.5°	172.3	225.5	282.3	295.2	287.8
85°	99.0	126.5	143.0	143.0	133.8
87.5°	40.3	40.3	34.8	22.0	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)