

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: P474781

Luminaire Tested: **22CZ2-70VHE-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474781
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-70VHE-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

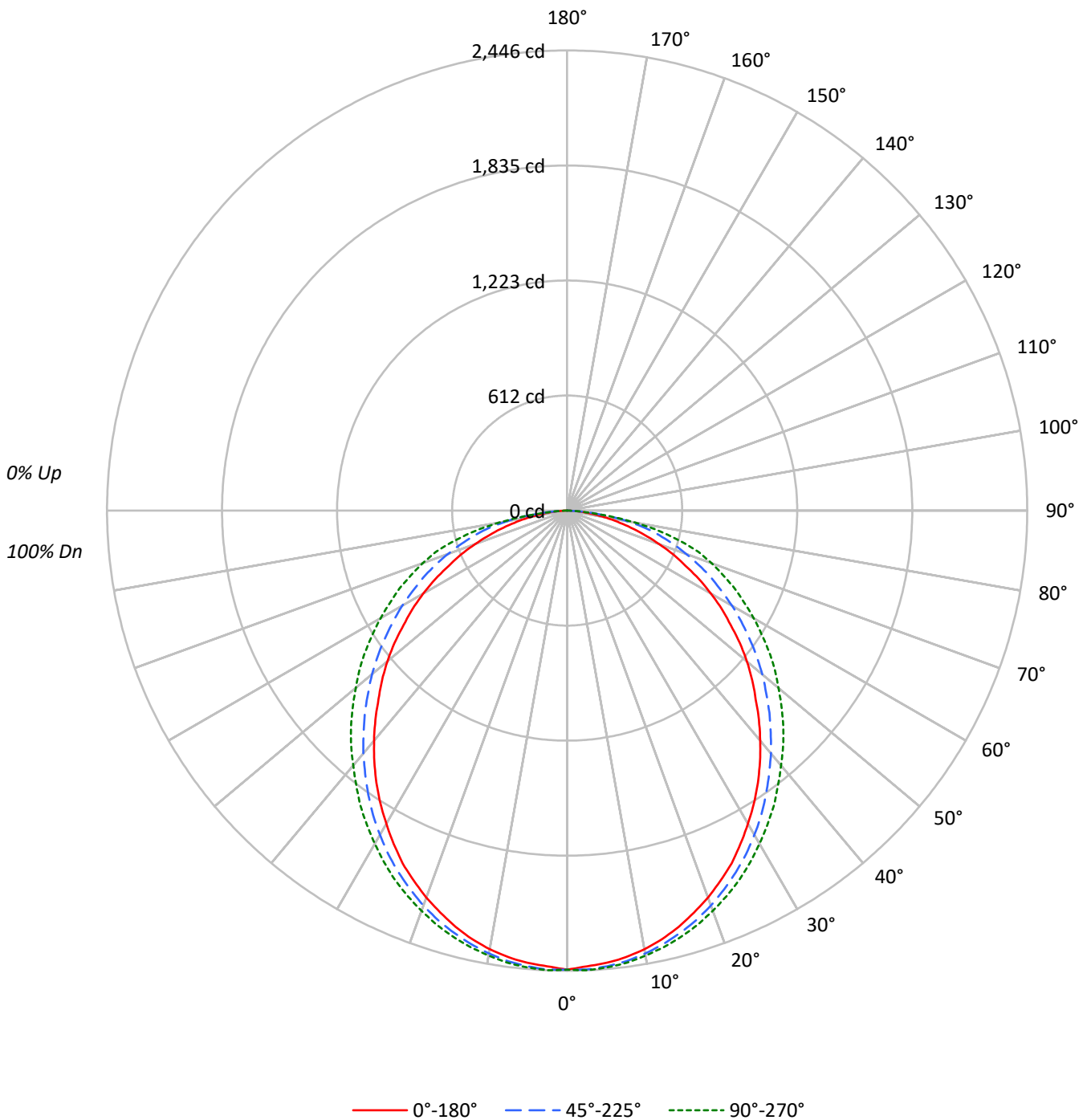
Lumens per Lamp: N/A
Luminaire Lumens: 6728.7 lumens
Efficiency: N/A
Efficacy: 136.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 49.3
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°	6567	6567	6567
5°	6518	6568	6584
10°	6469	6532	6563
15°	6382	6473	6533
20°	6267	6397	6483
25°	6143	6299	6430
30°	5974	6186	6354
35°	5807	6054	6292
40°	5610	5919	6214
45°	5395	5785	6186
50°	5221	5668	6138
55°	4977	5544	6151
60°	4753	5449	6168
65°	4418	5379	6266
70°	4083	5303	6422
75°	3651	5279	6461
80°	3064	5002	5641
85°	2371	3424	3205



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.5	3.4
10°-20°	654.5	9.7
20°-30°	975.8	14.5
30°-40°	1151.9	17.1
40°-50°	1174.1	17.4
50°-60°	1058.8	15.7
60°-70°	832.2	12.4
70°-80°	521.0	7.7
80°-90°	129.9	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°	1860.8	27.7
0°-40°	3012.7	44.8
0°-60°	5245.6	78.0
0°-90°	6728.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6728.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2440	2440	2440	2440	2440	
5°	2413	2419	2432	2437	2437	229
15°	2291	2301	2324	2341	2345	645
25°	2069	2085	2122	2154	2166	951
35°	1768	1790	1843	1894	1915	1105
45°	1418	1449	1520	1594	1625	1097
55°	1061	1094	1182	1273	1311	952
65°	694	737	845	938	984	692
75°	351	404	508	599	621	373
85°	77	98	111	111	104	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2440.2	2440.2	2440.2	2440.2	2440.2
2.5°	2424.5	2430.2	2441.6	2445.9	2445.9
5°	2413.1	2418.8	2431.6	2437.3	2437.3
7.5°	2394.7	2400.4	2416.0	2423.1	2424.5
10°	2367.6	2374.8	2390.4	2401.8	2401.8
12.5°	2333.5	2340.6	2360.5	2374.8	2376.2
15°	2290.9	2300.8	2323.6	2340.6	2344.9
17.5°	2241.1	2256.7	2282.3	2303.7	2307.9
20°	2188.5	2204.1	2234.0	2258.1	2263.8
22.5°	2130.2	2144.4	2179.9	2209.8	2216.9
25°	2069.0	2084.7	2121.6	2154.3	2165.7
27.5°	1996.5	2015.0	2059.1	2096.0	2107.4
30°	1922.6	1945.3	1990.8	2032.1	2044.8
32.5°	1847.2	1868.5	1919.7	1963.8	1980.9
35°	1767.6	1790.3	1842.9	1894.1	1915.4
37.5°	1683.7	1706.4	1763.3	1821.6	1841.5
40°	1596.9	1623.9	1685.1	1747.6	1769.0
42.5°	1508.8	1537.2	1601.2	1670.9	1699.3
45°	1417.7	1449.0	1520.1	1594.1	1625.4
47.5°	1335.3	1360.9	1434.8	1515.9	1545.7
50°	1247.1	1271.3	1353.8	1434.8	1466.1
52.5°	1157.5	1180.3	1268.4	1353.8	1392.1
55°	1060.8	1093.5	1181.7	1272.7	1311.1
57.5°	975.5	1005.4	1096.4	1188.8	1225.8
60°	883.1	914.4	1012.5	1106.3	1146.1
62.5°	790.6	824.8	924.3	1025.3	1062.2
65°	693.9	736.6	844.7	938.5	984.0
67.5°	611.5	652.7	759.4	857.5	897.3
70°	519.0	567.4	674.0	773.6	816.2
72.5°	432.3	480.6	590.1	689.7	732.3
75°	351.2	403.9	507.7	598.7	621.4
77.5°	273.0	322.8	426.6	479.2	503.4
80°	197.7	246.0	322.8	358.3	364.0
82.5°	133.7	174.9	219.0	228.9	223.3
85°	76.8	98.1	110.9	110.9	103.8
87.5°	31.3	31.3	27.0	17.1	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)