

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: P475079

Luminaire Tested: **22CZ2-110VHE-RDP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475079
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-110VHE-RDP-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7523.9 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

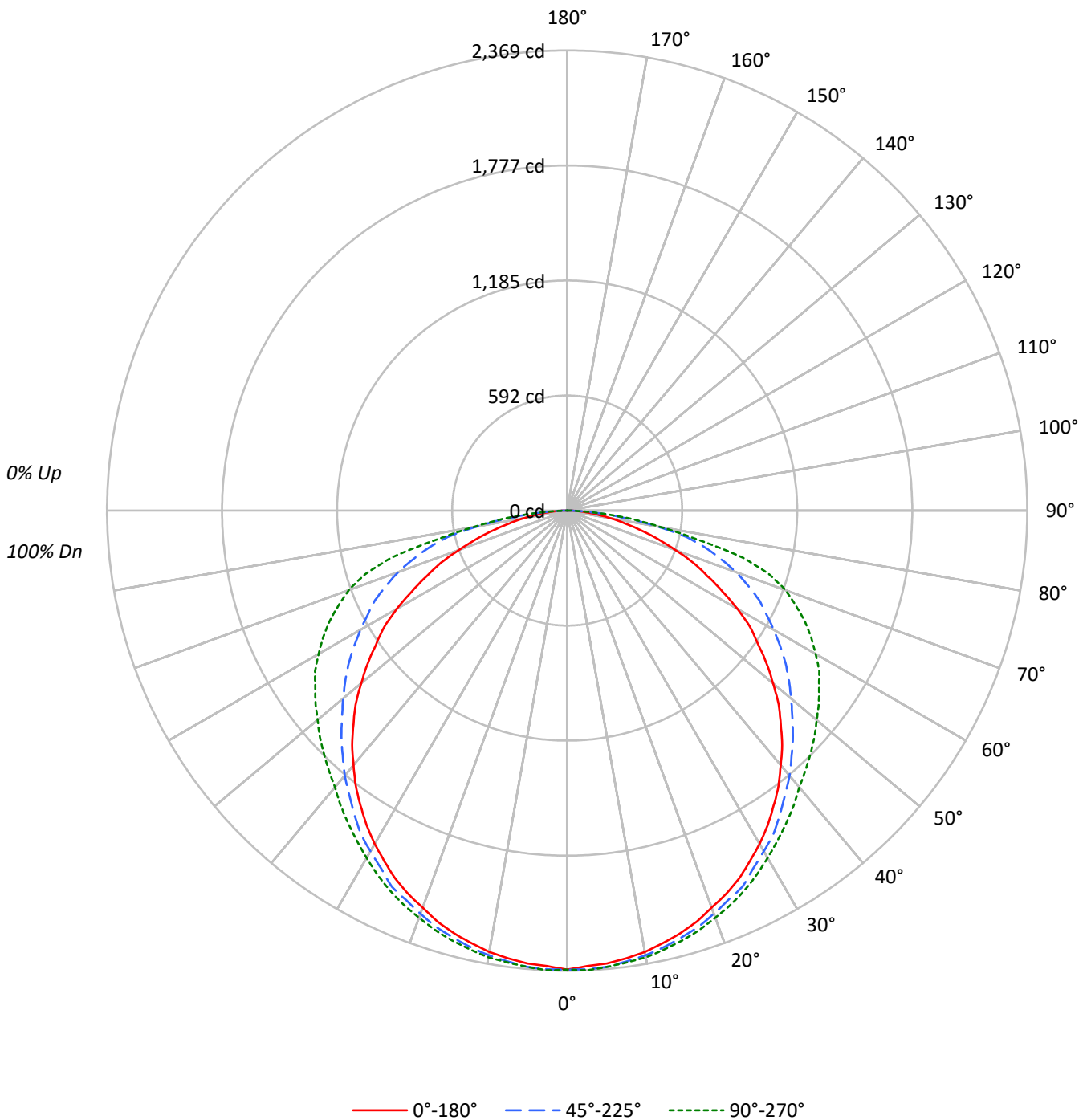
Input Watts (W): 84.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6360	6360	6360
5°	6324	6369	6369
10°	6306	6352	6383
15°	6276	6337	6383
20°	6229	6324	6388
25°	6212	6344	6410
30°	6157	6294	6415
35°	6091	6273	6456
40°	6008	6259	6532
45°	5919	6256	6739
50°	5793	6302	7020
55°	5635	6440	7426
60°	5452	6612	7953
65°	5074	6944	8600
70°	4660	7274	9407
75°	4088	7651	9727
80°	3519	7287	7637
85°	3072	5298	5808



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.6	3.0
10°-20°	641.9	8.5
20°-30°	979.3	13.0
30°-40°	1195.7	15.9
40°-50°	1278.5	17.0
50°-60°	1234.1	16.4
60°-70°	1062.3	14.1
70°-80°	718.8	9.6
80°-90°	189.7	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°	1844.8	24.5
0°-40°	3040.5	40.4
0°-60°	5553.1	73.8
0°-90°	7523.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7523.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2363	2363	2363	2363	2363	
5°	2341	2347	2358	2358	2358	222
15°	2253	2258	2275	2286	2291	635
25°	2092	2103	2137	2148	2159	963
35°	1854	1870	1910	1948	1965	1160
45°	1555	1583	1644	1727	1771	1201
55°	1201	1240	1373	1511	1583	1076
65°	797	874	1091	1262	1351	793
75°	393	520	736	886	936	422
85°	100	139	172	177	188	112
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2363.3	2363.3	2363.3	2363.3	2363.3
2.5°	2346.8	2352.3	2363.3	2363.3	2368.8
5°	2341.3	2346.8	2357.8	2357.8	2357.8
7.5°	2324.8	2330.3	2341.3	2346.8	2346.8
10°	2307.7	2313.8	2324.8	2330.3	2335.8
12.5°	2280.2	2285.7	2302.2	2313.8	2313.8
15°	2252.7	2258.2	2274.7	2285.7	2291.2
17.5°	2219.2	2230.7	2247.2	2258.2	2263.7
20°	2175.2	2186.2	2208.2	2225.2	2230.7
22.5°	2136.7	2147.7	2169.7	2186.2	2197.2
25°	2092.1	2103.1	2136.7	2147.7	2158.7
27.5°	2036.6	2048.1	2075.6	2097.6	2114.1
30°	1981.6	1992.6	2025.6	2053.6	2064.6
32.5°	1920.5	1937.0	1976.1	1998.1	2014.6
35°	1854.0	1870.5	1909.5	1948.0	1965.1
37.5°	1788.0	1804.5	1843.0	1893.0	1915.0
40°	1710.4	1732.4	1781.9	1848.5	1859.5
42.5°	1638.4	1665.9	1710.4	1788.0	1815.5
45°	1555.3	1582.8	1643.9	1726.9	1770.9
47.5°	1477.8	1505.3	1571.8	1671.4	1726.9
50°	1383.7	1422.2	1505.3	1621.9	1676.9
52.5°	1295.2	1328.2	1439.3	1566.3	1632.9
55°	1201.1	1239.6	1372.7	1510.8	1582.8
57.5°	1118.1	1151.1	1300.7	1455.8	1538.8
60°	1013.1	1057.1	1228.6	1394.7	1477.8
62.5°	902.0	968.5	1156.6	1328.2	1416.7
65°	796.9	874.5	1090.6	1261.6	1350.7
67.5°	702.9	785.9	1007.6	1190.2	1273.2
70°	592.3	697.4	924.5	1101.6	1195.6
72.5°	492.8	608.8	830.5	1007.6	1090.6
75°	393.2	520.3	735.9	885.5	935.5
77.5°	304.1	426.2	630.8	675.4	680.9
80°	227.1	337.7	470.2	475.7	492.8
82.5°	155.1	238.1	304.1	332.2	337.7
85°	99.5	138.6	171.6	177.1	188.1
87.5°	44.5	50.0	61.0	55.5	55.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)