

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: P474290

Luminaire Tested: **24CZ2-80VHE-RDP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474290
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-80VHE-RDP-UNV-L840-CD1-U
Description: 2'X4' 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: 5474.9 lumens
Efficiency: N/A
Efficacy: 97.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

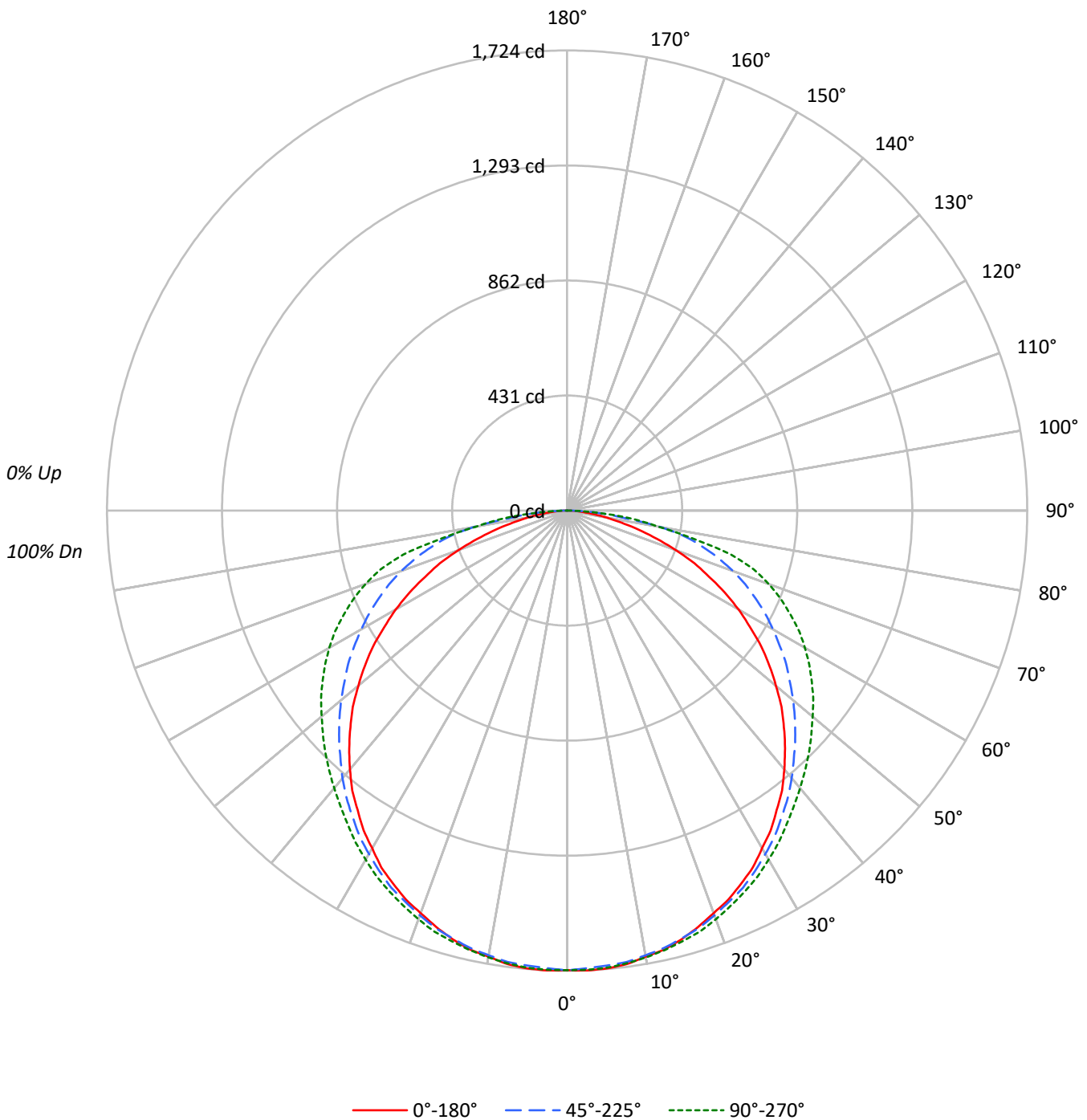
Input Watts (W): 56.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	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°	2317	2317	2317
5°	2326	2311	2322
10°	2319	2312	2323
15°	2315	2311	2327
20°	2298	2310	2333
25°	2290	2314	2338
30°	2270	2308	2346
35°	2248	2302	2355
40°	2223	2299	2385
45°	2186	2300	2439
50°	2137	2314	2513
55°	2083	2350	2625
60°	1995	2397	2770
65°	1868	2481	2939
70°	1698	2596	3162
75°	1439	2739	3304
80°	1137	2756	2672
85°	838	2098	2350



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.3	3.0
10°-20°	470.0	8.6
20°-30°	718.8	13.1
30°-40°	878.6	16.0
40°-50°	936.5	17.1
50°-60°	895.4	16.4
60°-70°	758.5	13.9
70°-80°	509.8	9.3
80°-90°	143.8	2.6
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°	1352.1	24.7
0°-40°	2230.8	40.7
0°-60°	4062.7	74.2
0°-90°	5474.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5474.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1722	1722	1722	1722	1722	
5°	1722	1719	1711	1719	1719	164
15°	1662	1662	1659	1673	1670	469
25°	1542	1548	1559	1572	1575	711
35°	1369	1379	1401	1428	1434	857
45°	1149	1168	1208	1260	1282	886
55°	888	920	1002	1081	1119	791
65°	587	646	779	882	923	582
75°	277	377	527	616	636	297
85°	54	111	136	147	152	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1721.8	1721.8	1721.8	1721.8	1721.8
2.5°	1724.5	1724.5	1716.3	1721.8	1721.8
5°	1721.8	1719.1	1710.9	1719.1	1719.1
7.5°	1713.6	1710.9	1705.5	1713.6	1710.9
10°	1697.3	1697.3	1691.9	1700.0	1700.0
12.5°	1683.7	1681.0	1678.3	1689.2	1686.5
15°	1662.0	1662.0	1659.3	1672.9	1670.2
17.5°	1634.8	1637.6	1640.3	1651.1	1653.9
20°	1604.9	1610.4	1613.1	1629.4	1629.4
22.5°	1577.8	1580.5	1585.9	1602.2	1602.2
25°	1542.5	1547.9	1558.8	1572.3	1575.1
27.5°	1507.1	1509.9	1523.4	1542.5	1545.2
30°	1460.9	1469.1	1485.4	1507.1	1509.9
32.5°	1420.2	1428.3	1447.4	1469.1	1474.5
35°	1368.6	1379.4	1401.2	1428.3	1433.8
37.5°	1322.4	1330.5	1357.7	1387.6	1395.7
40°	1265.6	1281.6	1308.8	1344.1	1357.7
42.5°	1208.5	1224.8	1257.4	1303.4	1319.7
45°	1148.8	1167.8	1208.5	1260.2	1281.6
47.5°	1089.0	1110.7	1156.9	1216.7	1241.1
50°	1021.1	1048.2	1105.3	1173.2	1200.4
52.5°	955.9	988.5	1050.9	1127.0	1162.3
55°	887.9	920.5	1002.0	1080.8	1118.9
57.5°	811.8	855.3	945.0	1034.6	1075.4
60°	741.5	782.0	890.6	988.5	1029.2
62.5°	665.4	719.7	836.3	939.5	980.3
65°	586.6	646.4	779.2	882.5	923.2
67.5°	516.0	581.2	722.5	825.4	866.2
70°	431.7	513.2	660.0	762.9	803.7
72.5°	352.9	442.6	594.8	695.3	733.3
75°	276.9	377.4	526.8	616.5	635.5
77.5°	206.5	312.2	456.2	494.2	480.6
80°	146.7	250.0	355.7	336.6	344.8
82.5°	95.1	190.2	220.1	250.0	257.8
85°	54.3	111.4	135.9	146.7	152.2
87.5°	24.5	40.8	54.3	54.3	51.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)