

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: P474951

Luminaire Tested: **22CZ2-50VHE-S-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474951  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-50VHE-S-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5287.7 lumens  
Efficiency: N/A  
Efficacy: 151.1 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

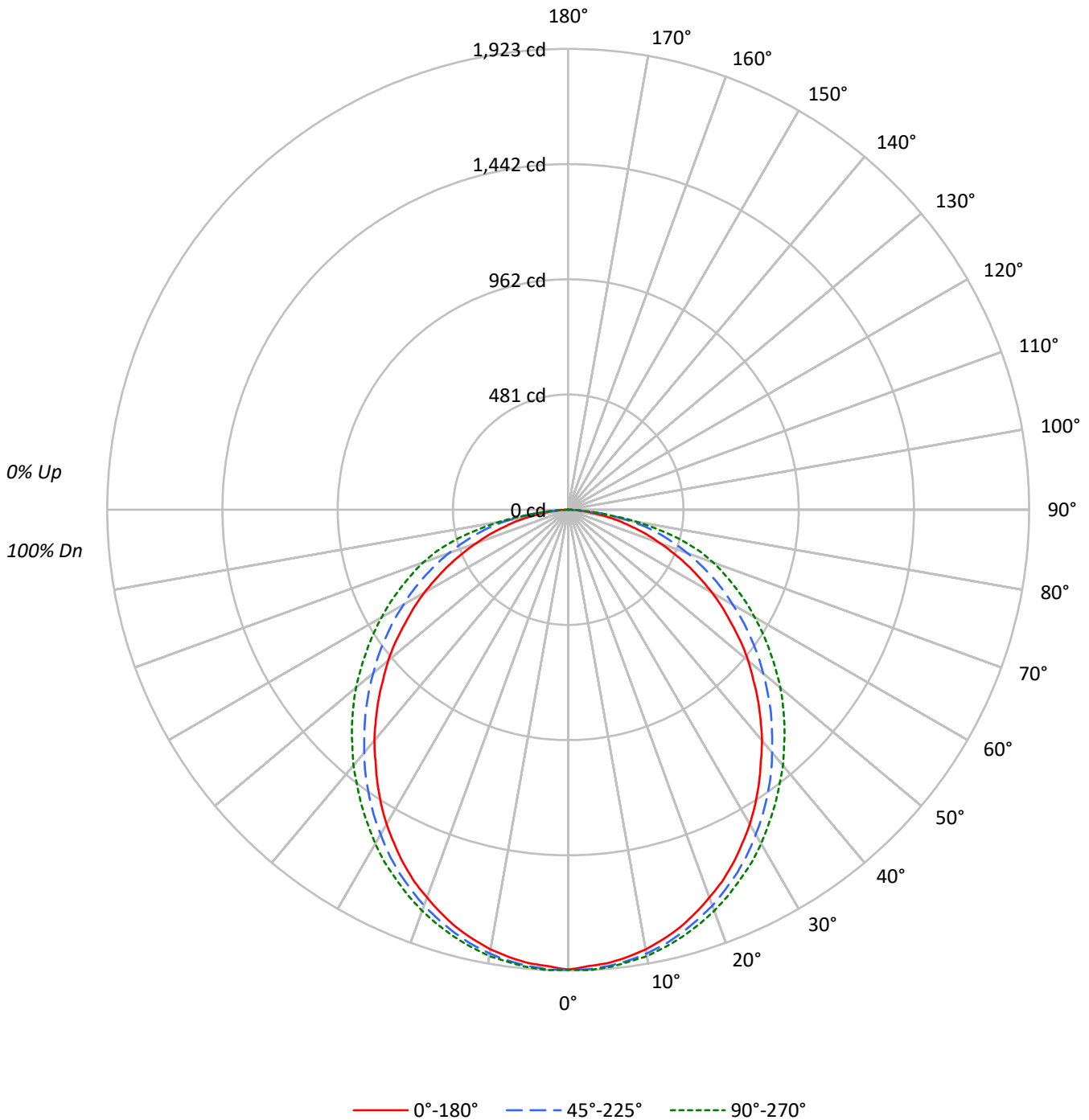
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5165	5165	5165
5°	5129	5164	5178
10°	5091	5140	5168
15°	5026	5094	5137
20°	4932	5035	5101
25°	4833	4958	5049
30°	4708	4863	5002
35°	4561	4763	4939
40°	4419	4648	4895
45°	4256	4548	4855
50°	4104	4446	4837
55°	3908	4358	4814
60°	3732	4270	4835
65°	3503	4220	4905
70°	3201	4168	5064
75°	2874	4138	5069
80°	2419	3907	4502
85°	1819	2646	2448



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	181.3	3.4
10°-20°	514.9	9.7
20°-30°	767.6	14.5
30°-40°	905.8	17.1
40°-50°	922.8	17.5
50°-60°	832.3	15.7
60°-70°	653.6	12.4
70°-80°	408.6	7.7
80°-90°	100.7	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°	1463.8	27.7
0°-40°	2369.6	44.8
0°-60°	4124.7	78.0
0°-90°	5287.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5287.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1919	1919	1919	1919	1919	
5°	1899	1903	1912	1916	1917	180
15°	1804	1811	1829	1841	1844	508
25°	1628	1637	1670	1694	1701	749
35°	1388	1408	1450	1490	1504	868
45°	1118	1138	1195	1253	1276	863
55°	833	860	929	1001	1026	747
65°	550	580	663	737	770	543
75°	276	315	398	466	488	295
85°	59	76	86	84	79	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1919.4	1919.4	1919.4	1919.4	1919.4
2.5°	1906.6	1910.4	1919.4	1923.2	1923.2
5°	1898.9	1902.8	1911.7	1915.6	1916.8
7.5°	1883.6	1888.7	1898.9	1904.1	1904.1
10°	1863.1	1869.5	1881.0	1888.7	1891.3
12.5°	1835.0	1842.6	1858.0	1866.9	1869.5
15°	1804.2	1810.6	1828.6	1841.4	1843.9
17.5°	1764.6	1774.8	1794.0	1810.6	1814.5
20°	1722.3	1733.9	1758.2	1777.4	1781.2
22.5°	1678.8	1687.8	1714.7	1737.7	1742.8
25°	1627.7	1636.6	1669.9	1694.2	1700.6
27.5°	1571.4	1586.7	1620.0	1648.1	1658.4
30°	1515.1	1530.4	1565.0	1598.2	1609.7
32.5°	1453.6	1470.3	1509.9	1544.5	1556.0
35°	1388.4	1407.6	1449.8	1489.5	1503.5
37.5°	1320.6	1342.3	1389.7	1431.9	1447.2
40°	1257.9	1273.2	1323.1	1371.7	1393.5
42.5°	1187.5	1207.9	1257.9	1312.9	1333.3
45°	1118.4	1137.6	1195.2	1252.7	1275.8
47.5°	1046.7	1071.0	1128.6	1192.6	1215.6
50°	980.2	1000.7	1062.1	1129.9	1155.5
52.5°	908.5	930.3	996.8	1067.2	1090.2
55°	833.0	859.9	929.0	1000.7	1026.2
57.5°	763.9	789.5	862.5	936.7	963.5
60°	693.5	719.1	793.4	868.9	898.3
62.5°	619.3	648.8	729.4	802.3	835.6
65°	550.2	579.7	662.8	737.1	770.3
67.5°	477.3	511.8	595.0	673.1	706.3
70°	406.9	447.9	529.8	606.5	643.6
72.5°	344.2	377.5	463.2	543.8	574.5
75°	276.4	314.8	398.0	465.8	487.5
77.5°	218.8	252.1	331.4	376.2	390.3
80°	156.1	193.2	252.1	279.0	290.5
82.5°	103.6	134.4	171.5	176.6	174.0
85°	58.9	75.5	85.7	84.5	79.3
87.5°	23.0	25.6	19.2	11.5	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)