

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: P475107

Luminaire Tested: **22CZ2-105VHE-RDP-UNV-L850-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475107  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-105VHE-RDP-UNV-L850-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP  
INSERT  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7190.0 lumens  
Efficiency: N/A  
Efficacy: 90.4 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

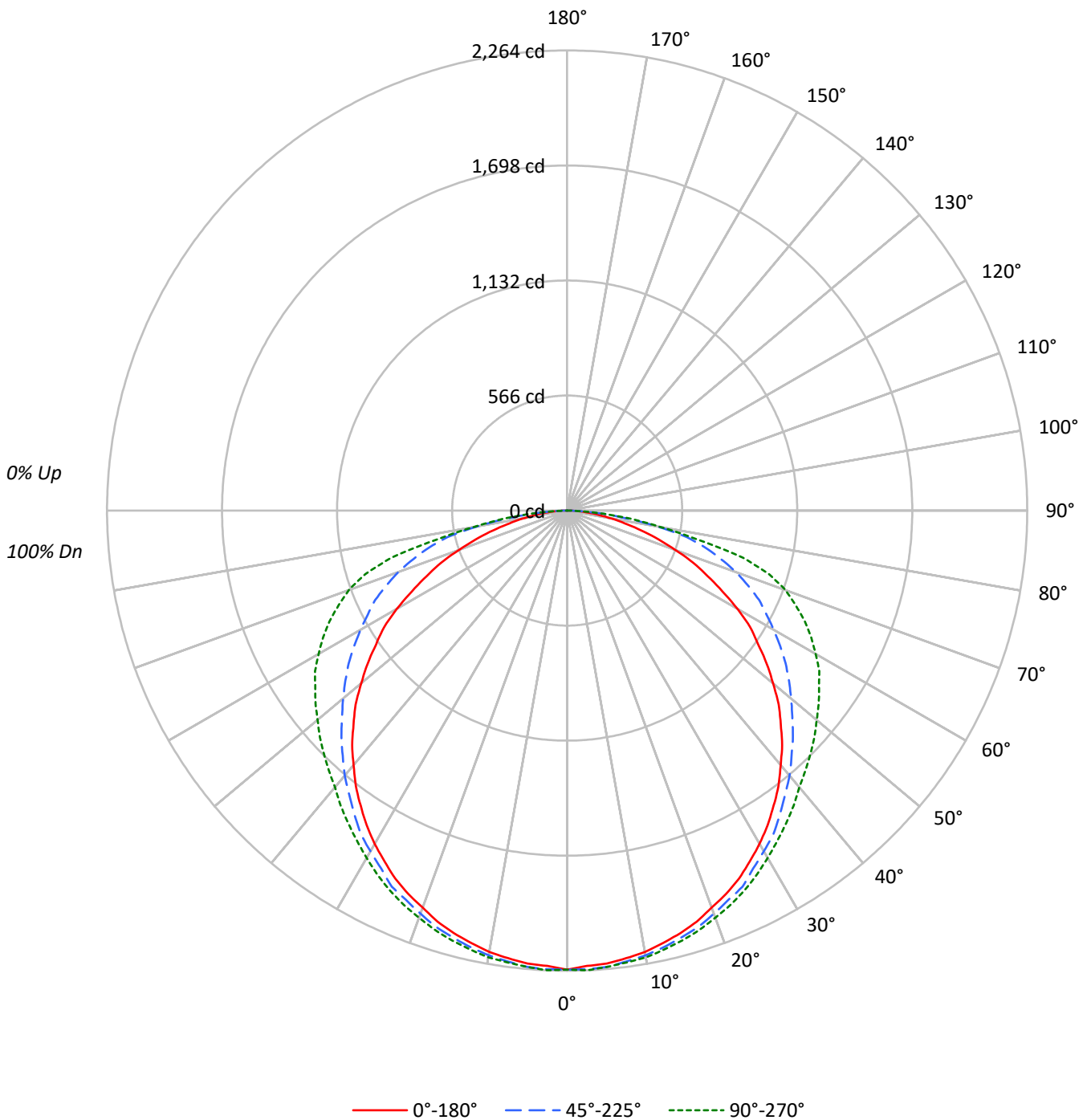
Input Watts (W): 79.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P475107

CATALOG NUMBER: 22CZ2-105VHE-RDP-UNV-L850-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475107

CATALOG NUMBER: 22CZ2-105VHE-RDP-UNV-L850-CD1-U

**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°	6077	6077	6077
5°	6044	6086	6086
10°	6026	6071	6099
15°	5997	6056	6100
20°	5952	6043	6105
25°	5936	6062	6125
30°	5884	6015	6131
35°	5820	5995	6169
40°	5742	5982	6242
45°	5656	5978	6440
50°	5536	6022	6709
55°	5385	6154	7096
60°	5210	6319	7600
65°	4849	6636	8219
70°	4453	6951	8990
75°	3907	7311	9295
80°	3364	6964	7297
85°	2936	5064	5548



TEST NUMBER: P475107

CATALOG NUMBER: 22CZ2-105VHE-RDP-UNV-L850-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	213.6	3.0
10°-20°	613.4	8.5
20°-30°	935.9	13.0
30°-40°	1142.7	15.9
40°-50°	1221.8	17.0
50°-60°	1179.3	16.4
60°-70°	1015.2	14.1
70°-80°	686.9	9.6
80°-90°	181.3	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°	1762.9	24.5
0°-40°	2905.6	40.4
0°-60°	5306.6	73.8
0°-90°	7190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7190.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2258	2258	2258	2258	2258	
5°	2237	2243	2253	2253	2253	212
15°	2153	2158	2174	2184	2190	607
25°	1999	2010	2042	2052	2063	920
35°	1772	1788	1825	1862	1878	1109
45°	1486	1513	1571	1650	1692	1147
55°	1148	1185	1312	1444	1513	1029
65°	762	836	1042	1206	1291	757
75°	376	497	703	846	894	403
85°	95	132	164	169	180	107
90°	0	0	0	0	0	



TEST NUMBER: P475107

CATALOG NUMBER: 22CZ2-105VHE-RDP-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2258.4	2258.4	2258.4	2258.4	2258.4
2.5°	2242.6	2247.9	2258.4	2258.4	2263.6
5°	2237.4	2242.6	2253.1	2253.1	2253.1
7.5°	2221.6	2226.9	2237.4	2242.6	2242.6
10°	2205.3	2211.1	2221.6	2226.9	2232.1
12.5°	2179.0	2184.3	2200.0	2211.1	2211.1
15°	2152.7	2158.0	2173.8	2184.3	2189.5
17.5°	2120.7	2131.7	2147.5	2158.0	2163.3
20°	2078.6	2089.2	2110.2	2126.5	2131.7
22.5°	2041.8	2052.4	2073.4	2089.2	2099.7
25°	1999.3	2009.8	2041.8	2052.4	2062.9
27.5°	1946.2	1957.2	1983.5	2004.5	2020.3
30°	1893.6	1904.1	1935.7	1962.5	1973.0
32.5°	1835.3	1851.1	1888.4	1909.4	1925.2
35°	1771.7	1787.5	1824.8	1861.6	1877.9
37.5°	1708.6	1724.4	1761.2	1809.0	1830.0
40°	1634.5	1655.6	1702.9	1766.4	1777.0
42.5°	1565.7	1592.0	1634.5	1708.6	1734.9
45°	1486.3	1512.6	1570.9	1650.3	1692.3
47.5°	1412.2	1438.5	1502.1	1597.2	1650.3
50°	1322.3	1359.1	1438.5	1549.9	1602.5
52.5°	1237.7	1269.3	1375.4	1496.8	1560.4
55°	1147.8	1184.6	1311.8	1443.7	1512.6
57.5°	1068.5	1100.0	1243.0	1391.2	1470.6
60°	968.1	1010.2	1174.1	1332.9	1412.2
62.5°	861.9	925.5	1105.3	1269.3	1353.9
65°	761.6	835.7	1042.2	1205.7	1290.8
67.5°	671.7	751.0	962.8	1137.3	1216.7
70°	566.0	666.4	883.5	1052.7	1142.6
72.5°	470.9	581.8	793.6	962.8	1042.2
75°	375.8	497.2	703.2	846.2	894.0
77.5°	290.6	407.3	602.8	645.4	650.7
80°	217.1	322.7	449.4	454.6	470.9
82.5°	148.2	227.6	290.6	317.4	322.7
85°	95.1	132.4	164.0	169.2	179.7
87.5°	42.6	47.8	58.3	53.1	53.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)