

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: P474295

Luminaire Tested: **24CZ2-105VHE-RDP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474295
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-105VHE-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: 7223.4 lumens
Efficiency: N/A
Efficacy: 95.4 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

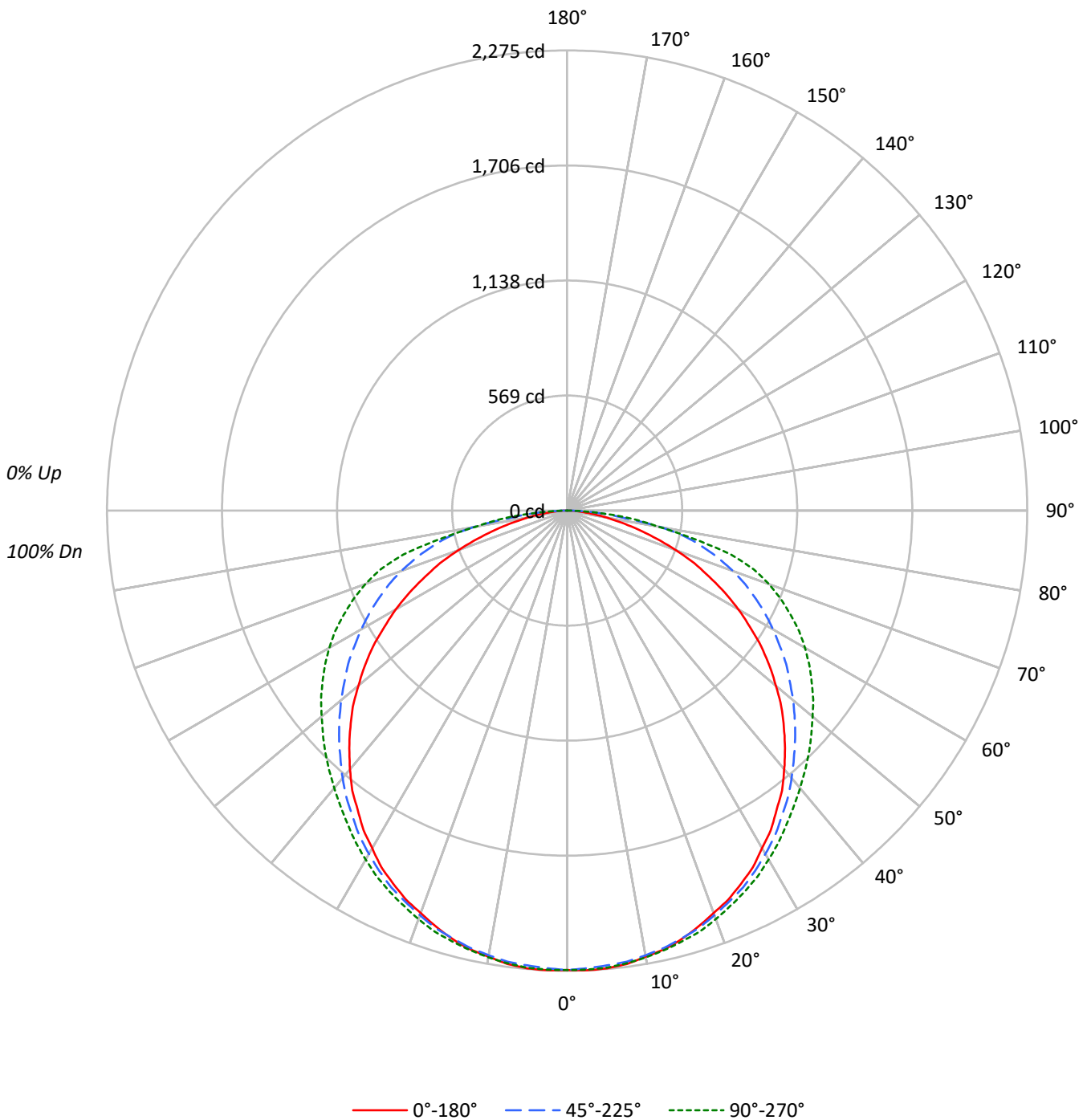
Input Watts (W): 75.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474295

CATALOG NUMBER: 24CZ2-105VHE-RDP-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474295

CATALOG NUMBER: 24CZ2-105VHE-RDP-UNV-L840-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	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°	3057	3057	3057
5°	3068	3049	3063
10°	3060	3050	3064
15°	3054	3049	3069
20°	3032	3047	3078
25°	3021	3053	3085
30°	2995	3045	3095
35°	2966	3037	3107
40°	2933	3033	3146
45°	2884	3034	3217
50°	2820	3053	3315
55°	2748	3101	3463
60°	2633	3162	3654
65°	2464	3273	3878
70°	2241	3425	4172
75°	1899	3614	4359
80°	1500	3636	3525
85°	1107	2766	3098



TEST NUMBER: P474295

CATALOG NUMBER: 24CZ2-105VHE-RDP-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.5	3.0
10°-20°	620.2	8.6
20°-30°	948.3	13.1
30°-40°	1159.3	16.0
40°-50°	1235.6	17.1
50°-60°	1181.4	16.4
60°-70°	1000.7	13.9
70°-80°	672.6	9.3
80°-90°	189.8	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°	1784.0	24.7
0°-40°	2943.2	40.7
0°-60°	5360.2	74.2
0°-90°	7223.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7223.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2272	2272	2272	2272	2272	
5°	2272	2268	2257	2268	2268	216
15°	2193	2193	2189	2207	2204	618
25°	2035	2042	2057	2074	2078	938
35°	1806	1820	1849	1884	1892	1131
45°	1516	1541	1594	1663	1691	1169
55°	1172	1214	1322	1426	1476	1043
65°	774	853	1028	1164	1218	768
75°	365	498	695	813	838	391
85°	72	147	179	194	201	89
90°	0	0	0	0	0	



TEST NUMBER: P474295

CATALOG NUMBER: 24CZ2-105VHE-RDP-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2271.7	2271.7	2271.7	2271.7	2271.7
2.5°	2275.2	2275.2	2264.5	2271.7	2271.7
5°	2271.7	2268.1	2257.3	2268.1	2268.1
7.5°	2260.9	2257.3	2250.2	2260.9	2257.3
10°	2239.4	2239.4	2232.2	2243.0	2243.0
12.5°	2221.5	2217.9	2214.3	2228.6	2225.1
15°	2192.8	2192.8	2189.2	2207.1	2203.5
17.5°	2156.9	2160.5	2164.1	2178.5	2182.0
20°	2117.5	2124.7	2128.3	2149.8	2149.8
22.5°	2081.7	2085.3	2092.4	2113.9	2113.9
25°	2035.1	2042.2	2056.6	2074.5	2078.1
27.5°	1988.5	1992.0	2010.0	2035.1	2038.7
30°	1927.5	1938.3	1959.8	1988.5	1992.0
32.5°	1873.8	1884.5	1909.6	1938.3	1945.4
35°	1805.6	1820.0	1848.7	1884.5	1891.7
37.5°	1744.7	1755.5	1791.3	1830.7	1841.5
40°	1669.8	1690.9	1726.8	1773.4	1791.3
42.5°	1594.5	1616.0	1659.0	1719.6	1741.1
45°	1515.6	1540.7	1594.5	1662.6	1690.9
47.5°	1436.8	1465.4	1526.4	1605.3	1637.5
50°	1347.2	1383.0	1458.3	1547.9	1583.7
52.5°	1261.1	1304.1	1386.6	1487.0	1533.6
55°	1171.5	1214.5	1322.1	1426.0	1476.2
57.5°	1071.1	1128.5	1246.8	1365.1	1418.8
60°	978.3	1031.7	1175.1	1304.1	1357.9
62.5°	877.9	949.6	1103.4	1239.6	1293.4
65°	773.9	852.8	1028.1	1164.3	1218.1
67.5°	680.7	766.8	953.2	1089.0	1142.8
70°	569.6	677.2	870.7	1006.6	1060.4
72.5°	465.7	584.0	784.7	917.3	967.5
75°	365.3	497.9	695.1	813.4	838.5
77.5°	272.4	411.9	601.9	652.1	634.1
80°	193.6	329.8	469.2	444.2	454.9
82.5°	125.5	250.9	290.4	329.8	340.2
85°	71.7	147.0	179.2	193.6	200.7
87.5°	32.3	53.8	71.7	71.7	68.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)