

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: P474195

Luminaire Tested: **24CZ2-105VHE-RDP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474195  
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-L830-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP  
INSERT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6840.6 lumens  
Efficiency: N/A  
Efficacy: 90.4 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

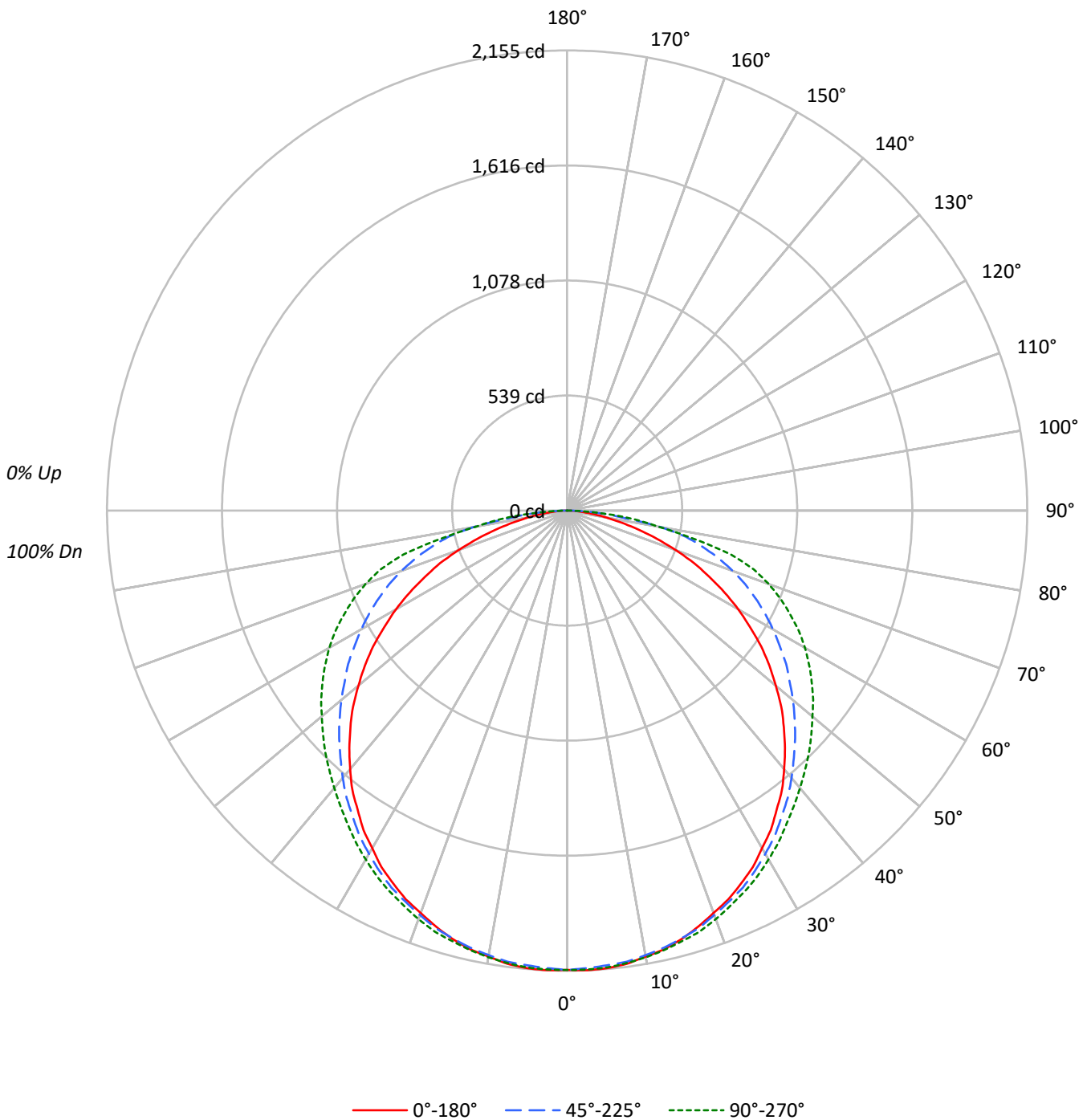
Input Watts (W): 75.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2895	2895	2895
5°	2906	2887	2901
10°	2897	2888	2902
15°	2893	2888	2907
20°	2871	2886	2915
25°	2861	2891	2922
30°	2836	2883	2931
35°	2809	2876	2942
40°	2777	2872	2980
45°	2731	2873	3047
50°	2671	2891	3139
55°	2602	2937	3279
60°	2493	2995	3460
65°	2333	3100	3672
70°	2122	3244	3950
75°	1798	3422	4128
80°	1420	3443	3338
85°	1048	2620	2935



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	204.1	3.0
10°-20°	587.3	8.6
20°-30°	898.1	13.1
30°-40°	1097.8	16.0
40°-50°	1170.1	17.1
50°-60°	1118.8	16.4
60°-70°	947.7	13.9
70°-80°	636.9	9.3
80°-90°	179.7	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°	1689.4	24.7
0°-40°	2787.3	40.7
0°-60°	5076.2	74.2
0°-90°	6840.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6840.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2151	2151	2151	2151	2151	
5°	2151	2148	2138	2148	2148	204
15°	2077	2077	2073	2090	2087	585
25°	1927	1934	1948	1965	1968	888
35°	1710	1724	1751	1785	1791	1071
45°	1435	1459	1510	1574	1601	1107
55°	1109	1150	1252	1350	1398	988
65°	733	808	974	1103	1154	728
75°	346	472	658	770	794	371
85°	68	139	170	183	190	84
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2151.3	2151.3	2151.3	2151.3	2151.3
2.5°	2154.7	2154.7	2144.5	2151.3	2151.3
5°	2151.3	2147.9	2137.7	2147.9	2147.9
7.5°	2141.1	2137.7	2130.9	2141.1	2137.7
10°	2120.7	2120.7	2113.9	2124.1	2124.1
12.5°	2103.8	2100.4	2097.0	2110.5	2107.1
15°	2076.6	2076.6	2073.2	2090.2	2086.8
17.5°	2042.6	2046.0	2049.4	2063.0	2066.4
20°	2005.3	2012.1	2015.5	2035.9	2035.9
22.5°	1971.4	1974.7	1981.5	2001.9	2001.9
25°	1927.2	1934.0	1947.6	1964.6	1968.0
27.5°	1883.1	1886.5	1903.5	1927.2	1930.6
30°	1825.4	1835.6	1855.9	1883.1	1886.5
32.5°	1774.5	1784.6	1808.4	1835.6	1842.4
35°	1710.0	1723.5	1750.7	1784.6	1791.4
37.5°	1652.2	1662.4	1696.4	1733.7	1743.9
40°	1581.3	1601.3	1635.3	1679.4	1696.4
42.5°	1510.0	1530.4	1571.1	1628.5	1648.8
45°	1435.3	1459.1	1510.0	1574.5	1601.3
47.5°	1360.6	1387.8	1445.5	1520.2	1550.7
50°	1275.8	1309.7	1381.0	1465.9	1499.8
52.5°	1194.3	1235.0	1313.1	1408.2	1452.3
55°	1109.4	1150.2	1252.0	1350.4	1398.0
57.5°	1014.4	1068.7	1180.7	1292.7	1343.7
60°	926.4	977.0	1112.8	1235.0	1285.9
62.5°	831.4	899.3	1044.9	1173.9	1224.8
65°	732.9	807.6	973.6	1102.6	1153.5
67.5°	644.7	726.1	902.7	1031.3	1082.3
70°	539.4	641.3	824.6	953.3	1004.2
72.5°	441.0	553.0	743.1	868.7	916.3
75°	345.9	471.5	658.2	770.3	794.0
77.5°	258.0	390.1	570.0	617.5	600.5
80°	183.3	312.3	444.4	420.6	430.8
82.5°	118.8	237.6	275.0	312.3	322.2
85°	67.9	139.2	169.7	183.3	190.1
87.5°	30.6	50.9	67.9	67.9	64.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)