

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: P474493

Luminaire Tested: **24CZ2-95VHE-HRP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474493
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-HRP-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7877.8 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

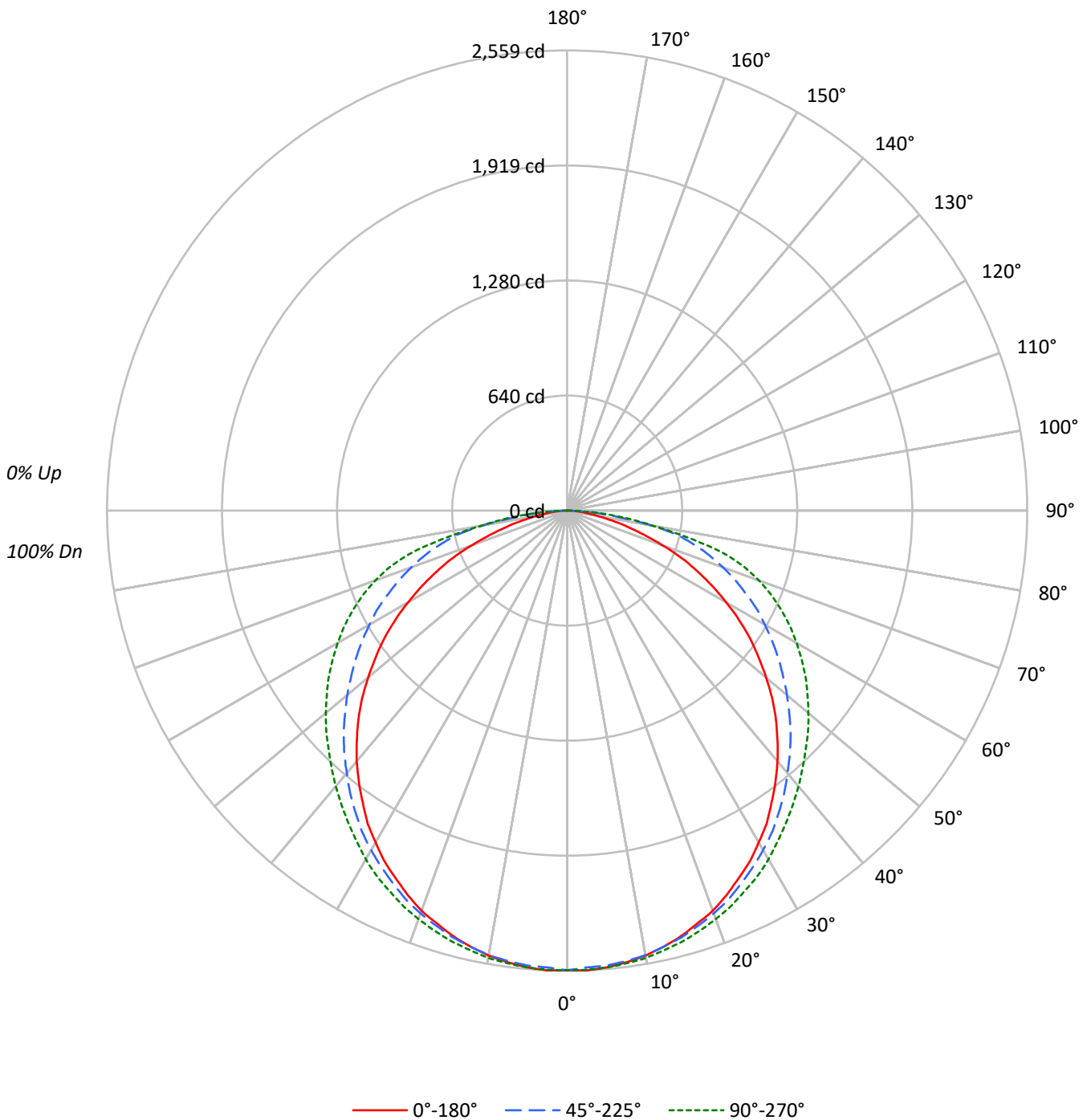
Input Watts (W): 67.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90		92	90	87		89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3439	3439	3439
5°	3443	3430	3443
10°	3433	3429	3451
15°	3413	3423	3455
20°	3391	3414	3461
25°	3349	3398	3466
30°	3310	3387	3479
35°	3256	3369	3483
40°	3197	3348	3516
45°	3125	3345	3571
50°	3024	3341	3666
55°	2917	3365	3799
60°	2751	3417	3967
65°	2541	3497	4190
70°	2218	3619	4463
75°	1800	3806	4612
80°	1330	3732	3732
85°	1019	2748	3105



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.1	3.1
10°-20°	695.3	8.8
20°-30°	1058.5	13.4
30°-40°	1285.3	16.3
40°-50°	1357.9	17.2
50°-60°	1281.3	16.3
60°-70°	1065.4	13.5
70°-80°	700.9	8.9
80°-90°	191.0	2.4
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°	1996.0	25.3
0°-40°	3281.2	41.7
0°-60°	5920.5	75.2
0°-90°	7877.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7877.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2556	2556	2556	2556	2556	
5°	2550	2550	2539	2550	2550	242
15°	2450	2454	2457	2480	2480	691
25°	2256	2269	2289	2328	2335	1041
35°	1982	2005	2051	2104	2121	1241
45°	1642	1676	1758	1843	1877	1265
55°	1243	1296	1434	1570	1619	1108
65°	798	891	1098	1260	1316	789
75°	346	505	732	867	887	373
85°	66	145	178	198	201	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2555.9	2555.9	2555.9	2555.9	2555.9
2.5°	2559.3	2555.9	2542.7	2555.9	2555.9
5°	2549.5	2549.5	2539.4	2549.5	2549.5
7.5°	2532.9	2532.9	2526.2	2539.4	2539.4
10°	2513.0	2513.0	2509.9	2526.2	2526.2
12.5°	2483.5	2486.6	2483.5	2503.1	2503.1
15°	2450.3	2453.7	2457.1	2480.1	2480.1
17.5°	2407.7	2414.1	2420.9	2447.0	2450.3
20°	2368.1	2371.1	2384.3	2414.1	2417.5
22.5°	2315.3	2325.1	2341.7	2371.1	2381.3
25°	2255.7	2268.9	2288.9	2328.5	2334.9
27.5°	2199.9	2209.7	2236.1	2279.1	2292.3
30°	2130.5	2147.1	2179.9	2222.9	2239.5
32.5°	2064.5	2081.0	2120.6	2166.7	2179.9
35°	1982.2	2005.2	2051.3	2104.1	2120.6
37.5°	1903.0	1926.0	1982.2	2041.4	2061.4
40°	1820.4	1846.8	1906.4	1975.4	2001.8
42.5°	1731.4	1767.6	1833.6	1909.4	1939.2
45°	1642.4	1675.5	1757.8	1843.4	1876.6
47.5°	1546.9	1586.5	1675.5	1777.8	1817.4
50°	1444.7	1494.1	1596.3	1708.4	1751.4
52.5°	1342.5	1398.3	1513.7	1639.0	1685.3
55°	1243.3	1296.1	1434.5	1569.9	1619.3
57.5°	1134.6	1200.6	1352.3	1497.1	1546.9
60°	1022.2	1095.0	1269.7	1421.3	1474.1
62.5°	910.2	992.8	1190.5	1342.5	1398.3
65°	798.2	890.6	1098.4	1259.9	1316.1
67.5°	689.2	791.4	1012.4	1174.2	1230.1
70°	563.9	692.6	920.0	1078.4	1134.6
72.5°	448.5	597.1	831.0	979.6	1029.0
75°	346.3	504.7	732.2	867.2	887.2
77.5°	253.9	412.3	629.9	676.0	679.4
80°	171.6	329.7	481.7	474.9	481.7
82.5°	112.0	247.4	303.3	339.8	342.9
85°	66.0	145.2	178.0	198.0	201.1
87.5°	32.8	49.4	62.6	66.0	72.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)