

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: P474443

Luminaire Tested: **24CZ2-95VHE-HRP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474443
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-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7730.9 lumens
Efficiency: N/A
Efficacy: 114.4 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

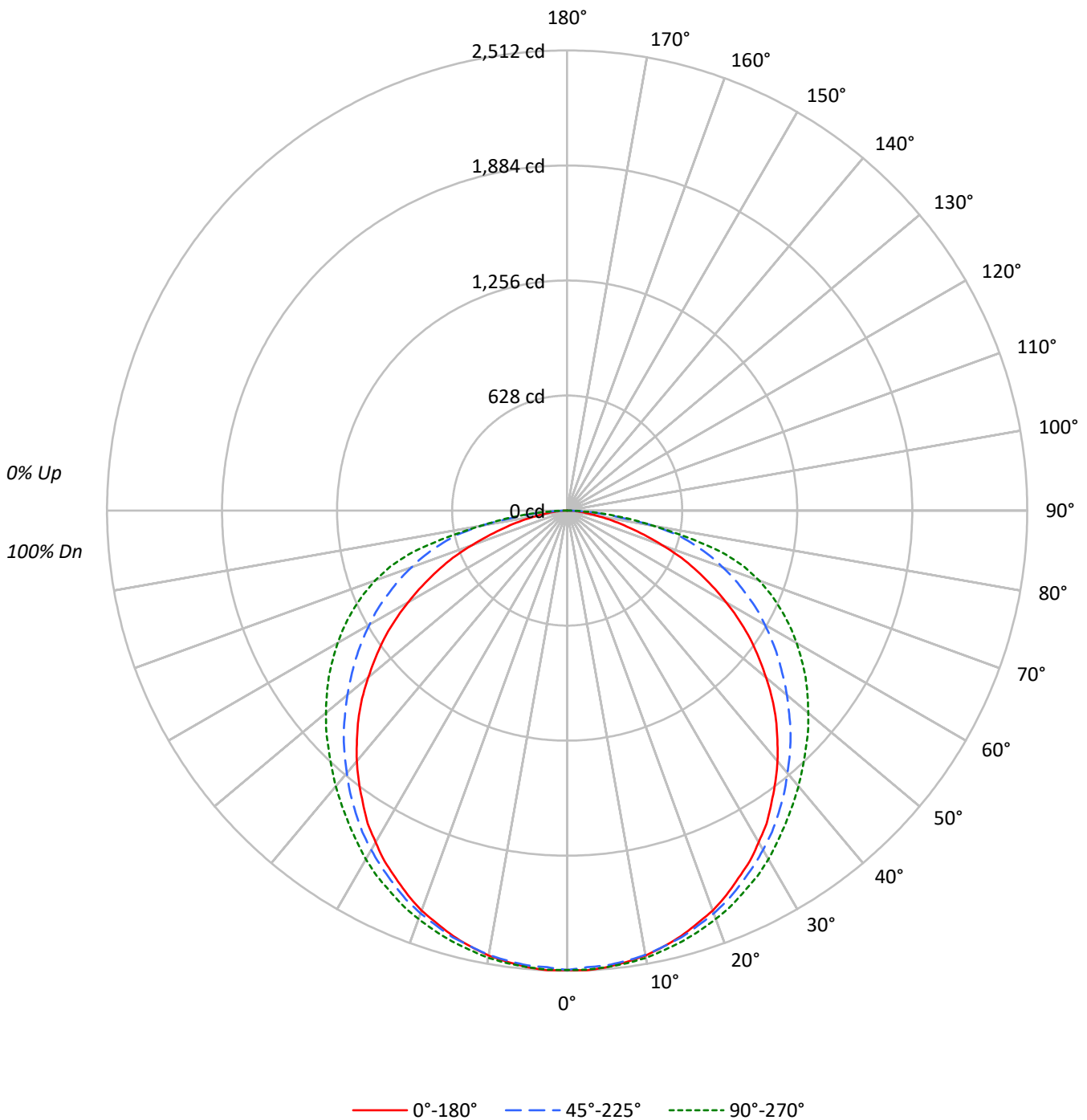
Input Watts (W): 67.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3375	3375	3375
5°	3379	3366	3379
10°	3369	3365	3387
15°	3350	3359	3390
20°	3327	3350	3397
25°	3286	3335	3402
30°	3248	3324	3414
35°	3195	3306	3418
40°	3138	3286	3450
45°	3067	3282	3504
50°	2968	3279	3598
55°	2862	3302	3728
60°	2700	3353	3893
65°	2494	3432	4112
70°	2177	3552	4380
75°	1766	3735	4526
80°	1305	3663	3663
85°	1000	2697	3046



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.6	3.1
10°-20°	682.3	8.8
20°-30°	1038.8	13.4
30°-40°	1261.3	16.3
40°-50°	1332.6	17.2
50°-60°	1257.4	16.3
60°-70°	1045.5	13.5
70°-80°	687.8	8.9
80°-90°	187.5	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°	1958.7	25.3
0°-40°	3220.0	41.7
0°-60°	5810.1	75.2
0°-90°	7730.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7730.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2508	2508	2508	2508	2508	
5°	2502	2502	2492	2502	2502	238
15°	2405	2408	2411	2434	2434	678
25°	2214	2227	2246	2285	2291	1021
35°	1945	1968	2013	2065	2081	1218
45°	1612	1644	1725	1809	1842	1241
55°	1220	1272	1408	1541	1589	1087
65°	783	874	1078	1236	1292	774
75°	340	495	718	851	871	366
85°	65	142	175	194	197	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2508.3	2508.3	2508.3	2508.3	2508.3
2.5°	2511.6	2508.3	2495.3	2508.3	2508.3
5°	2502.0	2502.0	2492.0	2502.0	2502.0
7.5°	2485.7	2485.7	2479.1	2492.0	2492.0
10°	2466.1	2466.1	2463.1	2479.1	2479.1
12.5°	2437.2	2440.2	2437.2	2456.5	2456.5
15°	2404.7	2408.0	2411.3	2433.9	2433.9
17.5°	2362.8	2369.1	2375.8	2401.3	2404.7
20°	2323.9	2326.9	2339.9	2369.1	2372.4
22.5°	2272.1	2281.7	2298.0	2326.9	2336.9
25°	2213.6	2226.6	2246.2	2285.1	2291.4
27.5°	2158.8	2168.5	2194.4	2236.6	2249.5
30°	2090.7	2107.0	2139.2	2181.4	2197.7
32.5°	2026.0	2042.2	2081.1	2126.3	2139.2
35°	1945.2	1967.8	2013.0	2064.8	2081.1
37.5°	1867.5	1890.1	1945.2	2003.4	2023.0
40°	1786.5	1812.4	1870.8	1938.6	1964.5
42.5°	1699.1	1734.6	1799.4	1873.8	1903.1
45°	1611.7	1644.3	1725.0	1809.1	1841.6
47.5°	1518.1	1556.9	1644.3	1744.6	1783.5
50°	1417.7	1466.2	1566.6	1676.5	1718.7
52.5°	1317.4	1372.2	1485.5	1608.4	1653.9
55°	1220.1	1271.9	1407.8	1540.7	1589.1
57.5°	1113.5	1178.2	1327.1	1469.2	1518.1
60°	1003.2	1074.6	1246.0	1394.8	1446.6
62.5°	893.2	974.3	1168.3	1317.4	1372.2
65°	783.3	874.0	1077.9	1236.4	1291.5
67.5°	676.3	776.6	993.6	1152.3	1207.1
70°	553.4	679.6	902.9	1058.3	1113.5
72.5°	440.1	586.0	815.5	961.3	1009.8
75°	339.8	495.3	718.5	851.0	870.6
77.5°	249.1	404.6	618.2	663.4	666.7
80°	168.4	323.5	472.7	466.0	472.7
82.5°	110.0	242.8	297.6	333.5	336.5
85°	64.8	142.5	174.7	194.3	197.3
87.5°	32.2	48.5	61.5	64.8	71.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)