

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: P475500

Luminaire Tested: **14CZ2-39HE-SQR-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475500
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-39HE-SQR-UNV-L835-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3719.8 lumens
Efficiency: N/A
Efficacy: 131.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.34 / 1.43
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

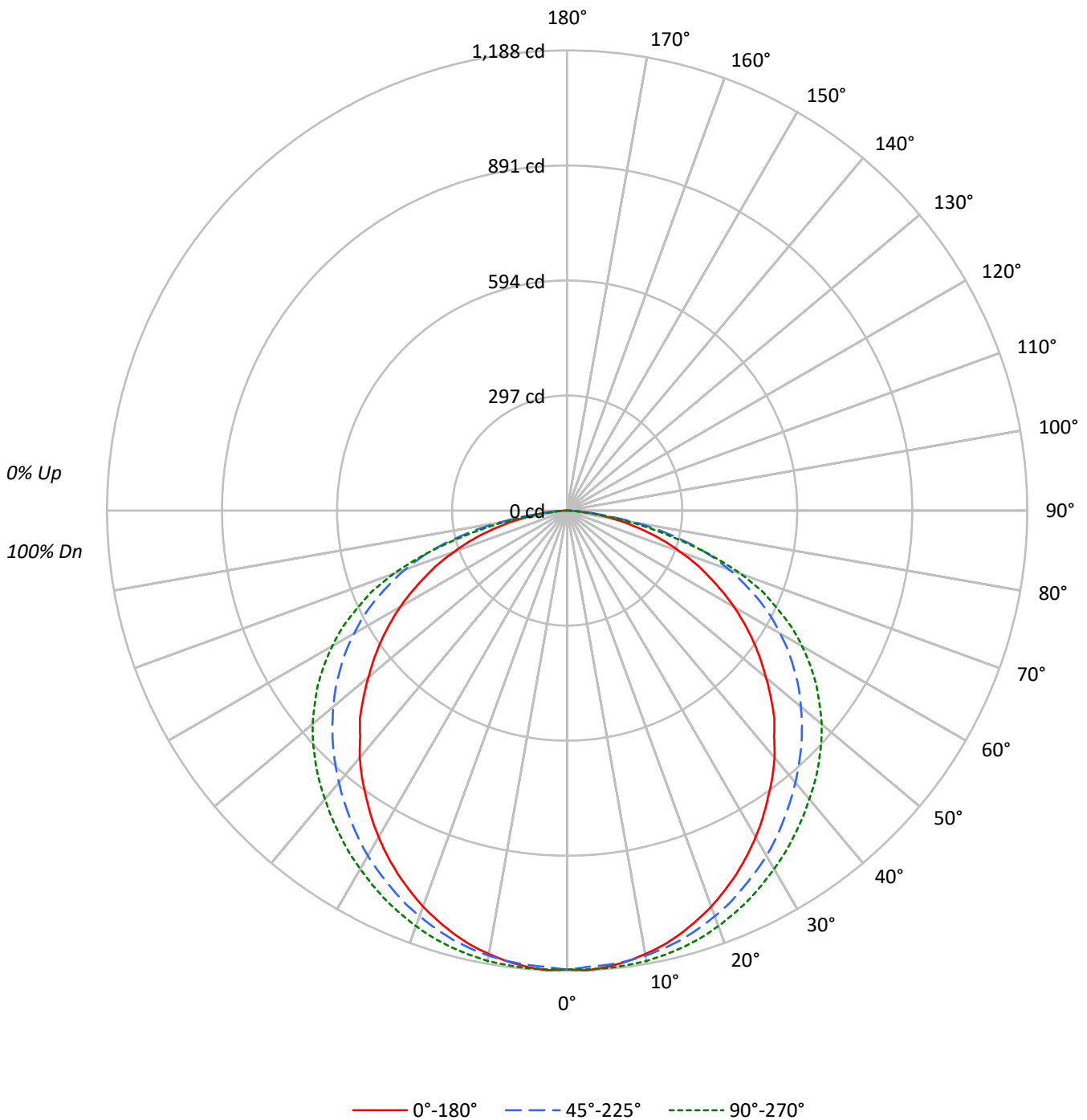
Input Watts (W): 28.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	77	74	70	68
3	89	78	69	63	86	76	68	62	73	67	61	70	65	60	68	63	59	57
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	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	43	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	37	31	27	25
10	52	38	30	25	50	38	30	25	37	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3188	3188	3188
5°	3195	3180	3203
10°	3177	3189	3226
15°	3151	3192	3248
20°	3116	3191	3269
25°	3072	3190	3293
30°	3025	3198	3319
35°	2971	3202	3361
40°	2926	3221	3417
45°	2878	3254	3497
50°	2805	3298	3592
55°	2750	3356	3686
60°	2679	3420	3771
65°	2575	3478	3812
70°	2437	3504	3744
75°	2228	3385	3232
80°	1872	2768	2408
85°	1362	1396	908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.5	3.0
10°-20°	324.3	8.7
20°-30°	495.8	13.3
30°-40°	608.5	16.4
40°-50°	654.4	17.6
50°-60°	628.2	16.9
60°-70°	520.4	14.0
70°-80°	311.9	8.4
80°-90°	63.9	1.7
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°	932.5	25.1
0°-40°	1541.0	41.4
0°-60°	2823.7	75.9
0°-90°	3719.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3719.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1185	1185	1185	1185	1185	
5°	1183	1180	1177	1187	1186	112
15°	1131	1136	1146	1164	1166	319
25°	1035	1051	1074	1103	1109	477
35°	904	935	975	1012	1023	566
45°	756	796	855	902	919	581
55°	586	642	715	768	786	523
65°	404	470	546	589	599	401
75°	214	279	326	318	311	226
85°	44	64	45	30	29	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1184.8	1184.8	1184.8	1184.8	1184.8
2.5°	1187.9	1184.8	1179.5	1187.9	1185.8
5°	1182.6	1180.5	1177.4	1186.9	1185.8
7.5°	1174.2	1174.2	1173.2	1184.8	1183.7
10°	1162.7	1164.8	1166.9	1180.5	1180.5
12.5°	1149.0	1151.1	1157.4	1173.2	1174.2
15°	1131.2	1136.4	1145.9	1163.7	1165.8
17.5°	1110.2	1118.6	1131.2	1152.2	1155.3
20°	1088.1	1097.6	1114.4	1137.5	1141.7
22.5°	1061.9	1075.5	1096.5	1120.7	1125.9
25°	1034.6	1051.4	1074.5	1102.8	1109.1
27.5°	1005.1	1025.1	1052.4	1081.8	1089.2
30°	973.6	996.7	1029.3	1060.8	1068.2
32.5°	940.0	967.3	1003.0	1037.7	1047.2
35°	904.3	934.8	974.7	1012.5	1023.0
37.5°	869.7	902.2	946.3	987.3	998.8
40°	832.9	867.6	916.9	960.0	972.6
42.5°	790.9	832.9	886.5	932.7	947.4
45°	756.2	796.1	855.0	902.2	919.0
47.5°	713.2	759.4	822.4	872.8	889.6
50°	670.1	722.6	787.7	840.2	858.1
52.5°	628.1	681.7	754.1	805.6	821.3
55°	586.1	641.7	715.3	767.8	785.6
57.5°	542.0	602.9	677.5	730.0	744.7
60°	497.8	558.8	635.4	685.9	700.6
62.5°	451.6	516.8	593.4	639.6	654.3
65°	404.4	470.5	546.2	589.2	598.7
67.5°	360.3	427.5	495.7	535.7	545.1
70°	309.8	381.3	445.3	474.7	475.8
72.5°	263.6	329.8	390.7	399.1	397.0
75°	214.3	279.4	325.6	318.2	310.9
77.5°	165.9	232.1	256.3	235.3	230.0
80°	120.8	180.7	178.6	158.6	155.4
82.5°	83.0	125.0	102.9	84.0	77.7
85°	44.1	64.1	45.2	30.5	29.4
87.5°	16.8	15.8	9.5	6.3	6.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)