

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: P475507

Luminaire Tested: **14CZ2-39-SQR-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475507  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-39-SQR-UNV-L840-CD1-U  
Description: 1'X4' TROFFER LED MODULE, SQUARE LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

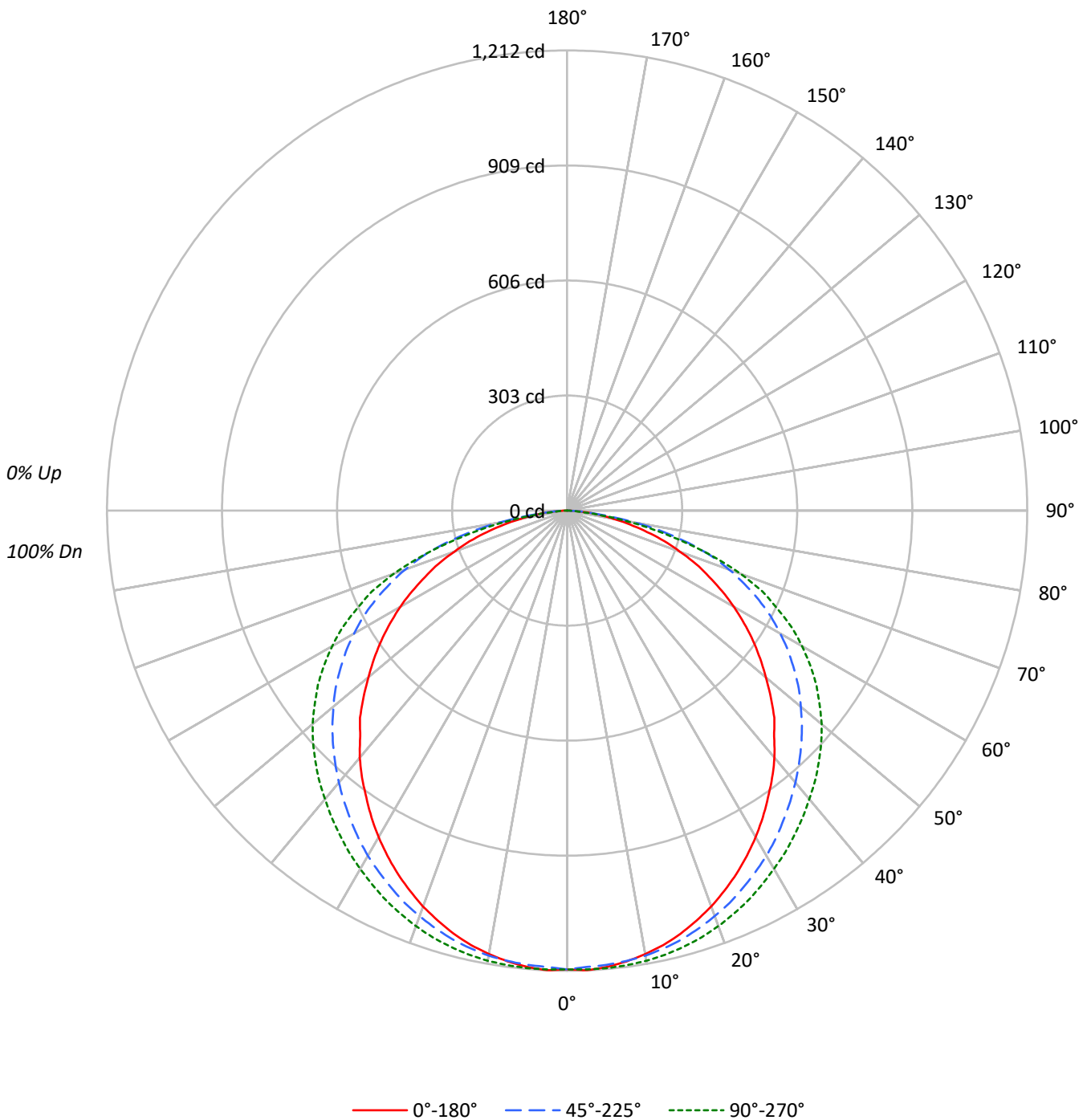
Lumens per Lamp: N/A  
Luminaire Lumens: 3794.4 lumens  
Efficiency: N/A  
Efficacy: 127.3 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.34 / 1.43  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 29.8  
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°	3252	3252	3252
5°	3259	3244	3267
10°	3241	3252	3290
15°	3215	3256	3313
20°	3178	3255	3335
25°	3133	3254	3359
30°	3086	3262	3386
35°	3030	3266	3428
40°	2984	3286	3485
45°	2936	3319	3567
50°	2861	3364	3664
55°	2805	3423	3760
60°	2733	3489	3846
65°	2627	3547	3889
70°	2487	3574	3818
75°	2273	3453	3297
80°	1909	2822	2458
85°	1389	1423	926



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.7	3.0
10°-20°	330.8	8.7
20°-30°	505.7	13.3
30°-40°	620.7	16.4
40°-50°	667.5	17.6
50°-60°	640.8	16.9
60°-70°	530.9	14.0
70°-80°	318.1	8.4
80°-90°	65.1	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°	951.2	25.1
0°-40°	1571.9	41.4
0°-60°	2880.2	75.9
0°-90°	3794.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3794.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1208	1208	1208	1208	1208	
5°	1206	1204	1201	1211	1210	114
15°	1154	1159	1169	1187	1189	325
25°	1055	1072	1096	1125	1131	486
35°	922	954	994	1033	1044	578
45°	771	812	872	920	937	593
55°	598	655	730	783	801	534
65°	412	480	557	601	611	409
75°	219	285	332	325	317	231
85°	45	65	46	31	30	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1208.5	1208.5	1208.5	1208.5	1208.5
2.5°	1211.7	1208.5	1203.1	1211.7	1209.6
5°	1206.4	1204.2	1201.0	1210.6	1209.6
7.5°	1197.8	1197.8	1196.7	1208.5	1207.4
10°	1186.0	1188.1	1190.3	1204.2	1204.2
12.5°	1172.1	1174.2	1180.6	1196.7	1197.8
15°	1153.9	1159.2	1168.9	1187.1	1189.2
17.5°	1132.4	1141.0	1153.9	1175.3	1178.5
20°	1109.9	1119.6	1136.7	1160.3	1164.6
22.5°	1083.1	1097.1	1118.5	1143.1	1148.5
25°	1055.3	1072.4	1096.0	1124.9	1131.4
27.5°	1025.3	1045.6	1073.5	1103.5	1111.0
30°	993.2	1016.7	1049.9	1082.1	1089.6
32.5°	958.9	986.7	1023.1	1058.5	1068.1
35°	922.4	953.5	994.2	1032.8	1043.5
37.5°	887.1	920.3	965.3	1007.1	1018.9
40°	849.6	884.9	935.3	979.2	992.1
42.5°	806.7	849.6	904.2	951.4	966.4
45°	771.4	812.1	872.1	920.3	937.4
47.5°	727.5	774.6	838.9	890.3	907.4
50°	683.5	737.1	803.5	857.1	875.3
52.5°	640.7	695.3	769.2	821.7	837.8
55°	597.8	654.6	729.6	783.2	801.4
57.5°	552.8	615.0	691.0	744.6	759.6
60°	507.8	570.0	648.2	699.6	714.6
62.5°	460.7	527.1	605.3	652.5	667.5
65°	412.5	480.0	557.1	601.0	610.7
67.5°	367.5	436.0	505.7	546.4	556.0
70°	316.1	388.9	454.3	484.3	485.3
72.5°	268.9	336.4	398.5	407.1	405.0
75°	218.6	285.0	332.1	324.6	317.1
77.5°	169.3	236.8	261.4	240.0	234.6
80°	123.2	184.3	182.1	161.8	158.6
82.5°	84.6	127.5	105.0	85.7	79.3
85°	45.0	65.4	46.1	31.1	30.0
87.5°	17.1	16.1	9.6	6.4	6.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)