

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: P475498

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

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475498  
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-L835-CD1-U  
Description: 1'X4' TROFFER LED MODULE, SQUARE LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

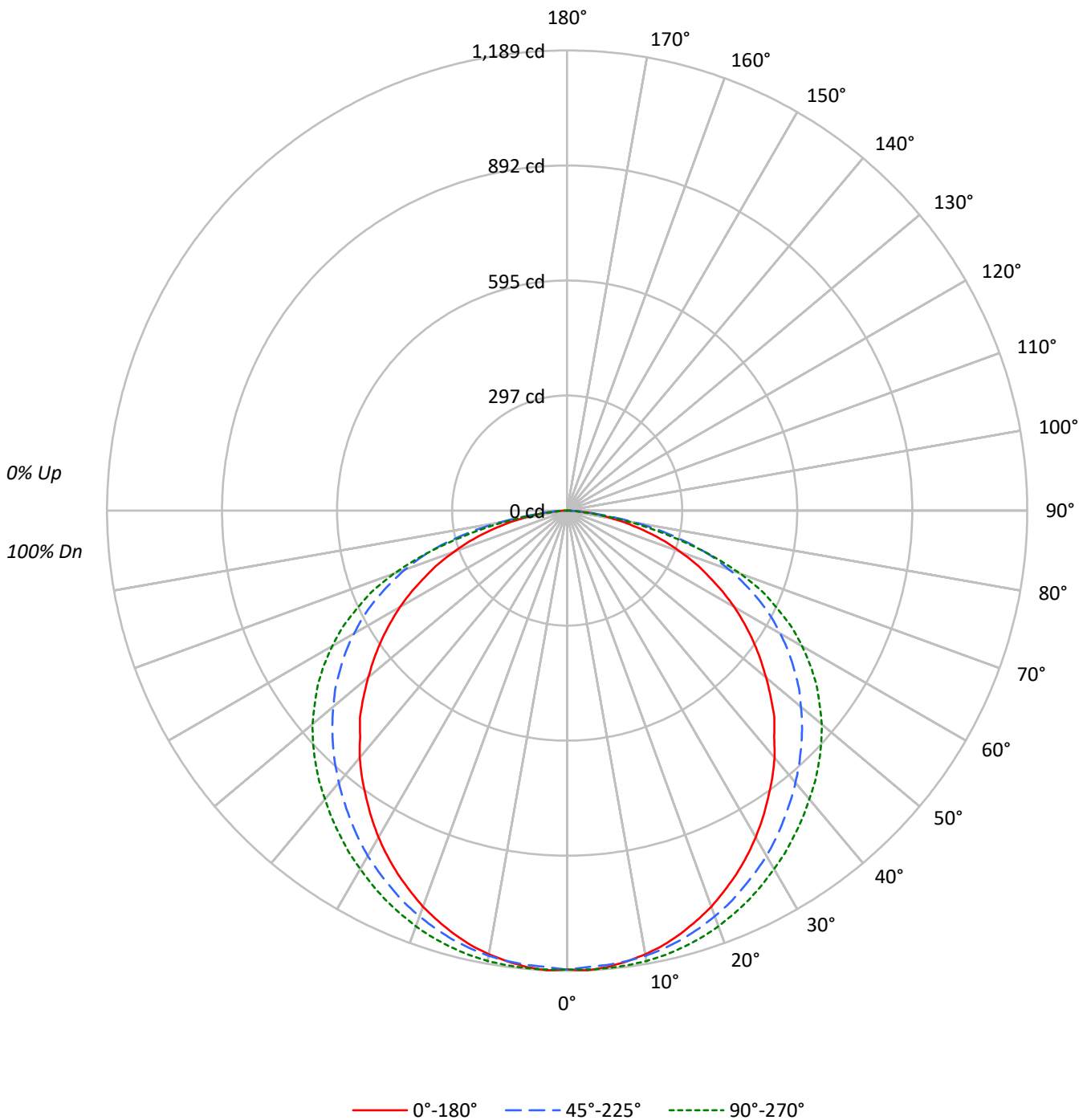
Lumens per Lamp: N/A  
Luminaire Lumens: 3723.6 lumens  
Efficiency: N/A  
Efficacy: 125.0 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.34 / 1.43  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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°	3192	3192	3192
5°	3198	3184	3206
10°	3180	3192	3229
15°	3154	3196	3251
20°	3119	3194	3273
25°	3075	3194	3297
30°	3028	3202	3323
35°	2974	3205	3364
40°	2929	3224	3420
45°	2881	3257	3501
50°	2808	3301	3596
55°	2753	3359	3689
60°	2682	3423	3774
65°	2578	3481	3816
70°	2441	3508	3747
75°	2230	3388	3236
80°	1874	2769	2411
85°	1365	1396	908



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.6	3.0
10°-20°	324.6	8.7
20°-30°	496.3	13.3
30°-40°	609.1	16.4
40°-50°	655.1	17.6
50°-60°	628.8	16.9
60°-70°	520.9	14.0
70°-80°	312.2	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°	933.5	25.1
0°-40°	1542.6	41.4
0°-60°	2826.5	75.9
0°-90°	3723.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3723.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1186	1186	1186	1186	1186	
5°	1184	1182	1179	1188	1187	112
15°	1132	1138	1147	1165	1167	319
25°	1036	1052	1076	1104	1110	477
35°	905	936	976	1014	1024	567
45°	757	797	856	903	920	582
55°	587	642	716	769	786	524
65°	405	471	547	590	599	401
75°	214	280	326	319	311	227
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°	1186.0	1186.0	1186.0	1186.0	1186.0
2.5°	1189.1	1186.0	1180.7	1189.1	1187.0
5°	1183.9	1181.8	1178.6	1188.1	1187.0
7.5°	1175.4	1175.4	1174.4	1186.0	1184.9
10°	1163.9	1166.0	1168.1	1181.8	1181.8
12.5°	1150.2	1152.3	1158.6	1174.4	1175.4
15°	1132.3	1137.6	1147.1	1164.9	1167.0
17.5°	1111.3	1119.7	1132.3	1153.4	1156.5
20°	1089.2	1098.7	1115.5	1138.6	1142.9
22.5°	1062.9	1076.6	1097.6	1121.8	1127.1
25°	1035.6	1052.4	1075.6	1104.0	1110.3
27.5°	1006.2	1026.2	1053.5	1082.9	1090.3
30°	974.6	997.8	1030.4	1061.9	1069.3
32.5°	941.0	968.3	1004.1	1038.8	1048.2
35°	905.2	935.7	975.7	1013.5	1024.0
37.5°	870.5	903.1	947.3	988.3	999.9
40°	833.7	868.4	917.9	961.0	973.6
42.5°	791.7	833.7	887.4	933.6	948.3
45°	757.0	796.9	855.8	903.1	920.0
47.5°	713.9	760.2	823.2	873.7	890.5
50°	670.8	723.4	788.5	841.1	859.0
52.5°	628.7	682.3	754.9	806.4	822.2
55°	586.7	642.4	716.0	768.6	786.4
57.5°	542.5	603.5	678.1	730.7	745.4
60°	498.4	559.3	636.1	686.6	701.3
62.5°	452.1	517.3	594.0	640.3	655.0
65°	404.8	471.0	546.7	589.8	599.3
67.5°	360.6	427.9	496.3	536.2	545.7
70°	310.2	381.7	445.8	475.2	476.3
72.5°	263.9	330.1	391.1	399.5	397.4
75°	214.5	279.7	325.9	318.6	311.2
77.5°	166.1	232.4	256.5	235.5	230.3
80°	120.9	180.8	178.7	158.8	155.6
82.5°	83.1	125.1	103.0	84.1	77.8
85°	44.2	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)