

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: P475491

Luminaire Tested: **14CZ2-39HE-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475491
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-L830-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

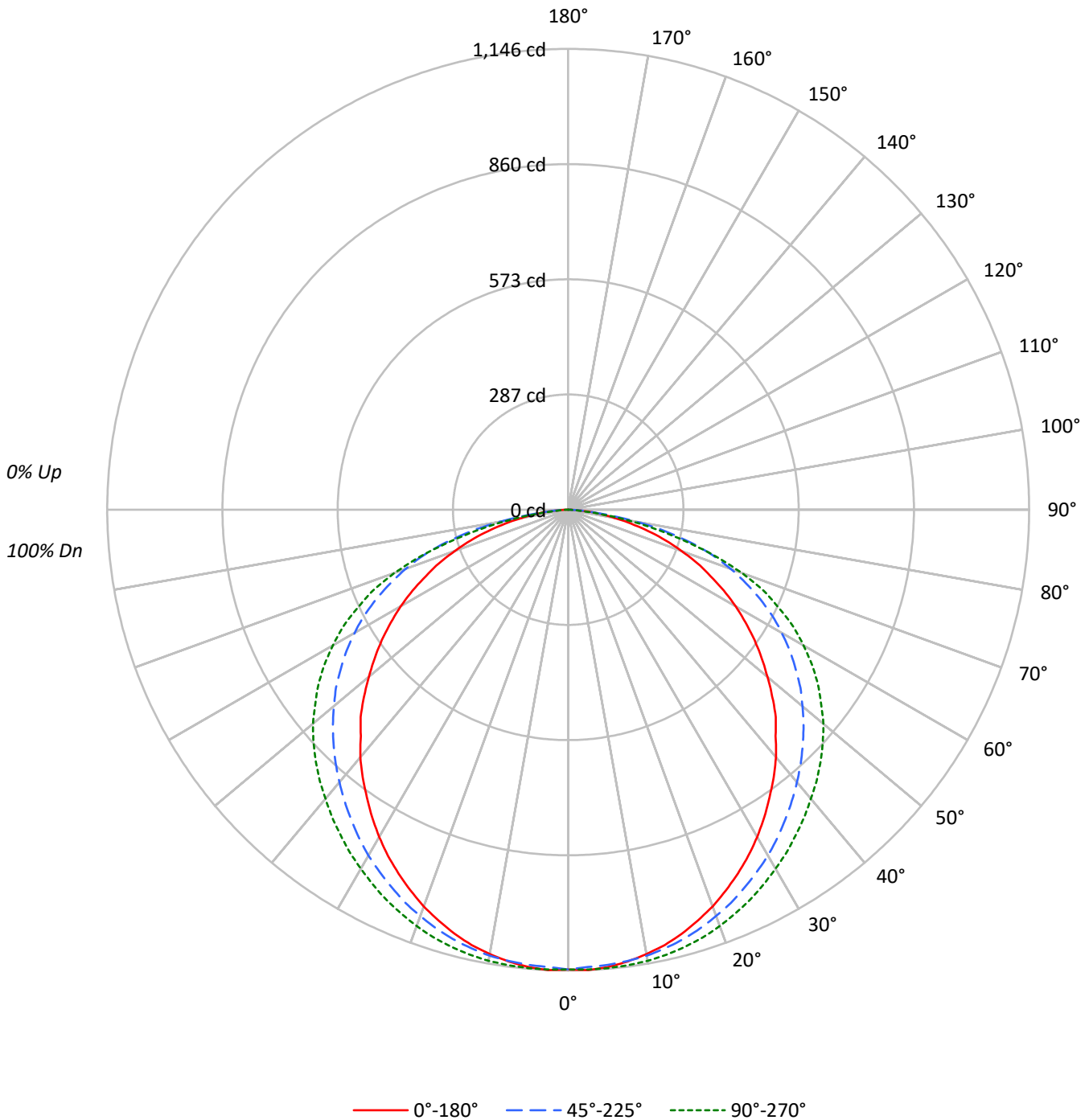
Lumens per Lamp: N/A
Luminaire Lumens: 3589.6 lumens
Efficiency: N/A
Efficacy: 126.4 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.34 / 1.43
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P475491
CATALOG NUMBER: 14CZ2-39HE-SQR-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P475491

CATALOG NUMBER: 14CZ2-39HE-SQR-UNV-L830-CD1-U

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°	3077	3077	3077
5°	3083	3069	3091
10°	3066	3077	3113
15°	3041	3081	3134
20°	3007	3080	3155
25°	2964	3079	3178
30°	2920	3086	3203
35°	2867	3090	3243
40°	2823	3108	3297
45°	2777	3140	3375
50°	2707	3183	3467
55°	2654	3238	3557
60°	2585	3300	3638
65°	2485	3356	3678
70°	2353	3381	3612
75°	2150	3267	3119
80°	1807	2670	2325
85°	1315	1346	877



TEST NUMBER: P475491

CATALOG NUMBER: 14CZ2-39HE-SQR-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.6	3.0
10°-20°	312.9	8.7
20°-30°	478.4	13.3
30°-40°	587.2	16.4
40°-50°	631.5	17.6
50°-60°	606.2	16.9
60°-70°	502.2	14.0
70°-80°	301.0	8.4
80°-90°	61.6	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°	899.9	25.1
0°-40°	1487.1	41.4
0°-60°	2724.8	75.9
0°-90°	3589.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3589.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1143	1143	1143	1143	1143	
5°	1141	1139	1136	1145	1144	108
15°	1092	1097	1106	1123	1125	308
25°	998	1015	1037	1064	1070	460
35°	873	902	941	977	987	547
45°	730	768	825	871	887	561
55°	566	619	690	741	758	505
65°	390	454	527	569	578	387
75°	207	270	314	307	300	219
85°	43	62	44	29	28	54
90°	0	0	0	0	0	



TEST NUMBER: P475491

CATALOG NUMBER: 14CZ2-39HE-SQR-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1143.3	1143.3	1143.3	1143.3	1143.3
2.5°	1146.3	1143.3	1138.2	1146.3	1144.3
5°	1141.3	1139.2	1136.2	1145.3	1144.3
7.5°	1133.1	1133.1	1132.1	1143.3	1142.3
10°	1122.0	1124.0	1126.1	1139.2	1139.2
12.5°	1108.8	1110.9	1116.9	1132.1	1133.1
15°	1091.6	1096.7	1105.8	1123.0	1125.0
17.5°	1071.3	1079.4	1091.6	1111.9	1114.9
20°	1050.0	1059.2	1075.4	1097.7	1101.7
22.5°	1024.7	1037.9	1058.1	1081.5	1086.5
25°	998.3	1014.6	1036.9	1064.2	1070.3
27.5°	970.0	989.2	1015.6	1044.0	1051.1
30°	939.6	961.9	993.3	1023.7	1030.8
32.5°	907.1	933.5	967.9	1001.4	1010.5
35°	872.7	902.1	940.6	977.1	987.2
37.5°	839.2	870.6	913.2	952.7	963.9
40°	803.7	837.2	884.8	926.4	938.5
42.5°	763.2	803.7	855.4	900.0	914.2
45°	729.8	768.3	825.0	870.6	886.9
47.5°	688.2	732.8	793.6	842.3	858.5
50°	646.6	697.3	760.2	810.8	828.1
52.5°	606.1	657.8	727.7	777.4	792.6
55°	565.6	619.3	690.2	740.9	758.1
57.5°	523.0	581.8	653.7	704.4	718.6
60°	480.4	539.2	613.2	661.8	676.0
62.5°	435.8	498.7	572.7	617.3	631.4
65°	390.2	454.1	527.0	568.6	577.7
67.5°	347.6	412.5	478.4	516.9	526.0
70°	299.0	367.9	429.7	458.1	459.1
72.5°	254.4	318.3	377.0	385.1	383.1
75°	206.8	269.6	314.2	307.1	300.0
77.5°	160.1	224.0	247.3	227.0	222.0
80°	116.6	174.3	172.3	153.0	150.0
82.5°	80.1	120.6	99.3	81.1	75.0
85°	42.6	61.8	43.6	29.4	28.4
87.5°	16.2	15.2	9.1	6.1	6.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)