

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: P475234

Luminaire Tested: **22CZ2-39HE-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475234
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-SQR-UNV-L830-CD1-U
Description: 2'X2' 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: 3664.4 lumens
Efficiency: N/A
Efficacy: 128.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

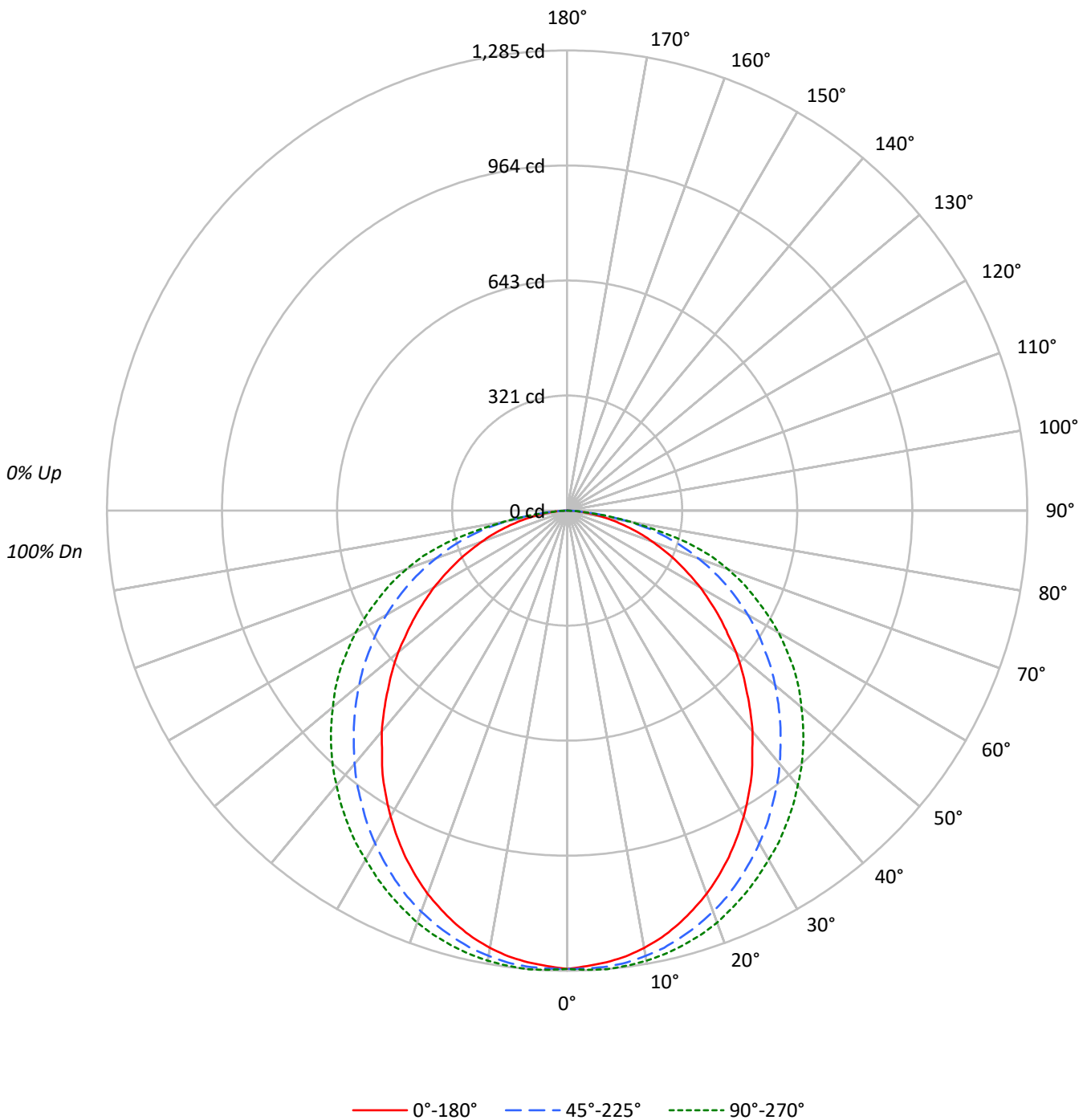
Input Watts (W): 28.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3444	3444	3444
5°	3420	3453	3472
10°	3389	3450	3488
15°	3334	3435	3498
20°	3262	3412	3506
25°	3171	3377	3501
30°	3064	3334	3497
35°	2954	3285	3508
40°	2829	3244	3519
45°	2694	3204	3548
50°	2577	3175	3575
55°	2440	3149	3631
60°	2312	3136	3670
65°	2159	3111	3698
70°	1983	3065	3749
75°	1790	2983	3616
80°	1536	2642	2723
85°	1235	1556	1235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.4	3.3
10°-20°	347.0	9.5
20°-30°	521.1	14.2
30°-40°	621.5	17.0
40°-50°	642.6	17.5
50°-60°	590.8	16.1
60°-70°	470.3	12.8
70°-80°	287.4	7.8
80°-90°	62.4	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°	989.4	27.0
0°-40°	1610.9	44.0
0°-60°	2844.3	77.6
0°-90°	3664.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3664.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1280	1280	1280	1280	1280	
5°	1266	1270	1278	1284	1285	120
15°	1197	1210	1233	1250	1256	337
25°	1068	1094	1137	1169	1179	491
35°	899	937	1000	1052	1068	561
45°	708	758	842	910	932	547
55°	520	577	671	748	774	465
65°	339	397	489	557	581	336
75°	172	223	287	337	348	183
85°	40	49	50	44	40	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1280.0	1280.0	1280.0	1280.0	1280.0
2.5°	1273.1	1274.8	1280.0	1283.6	1283.6
5°	1266.1	1269.6	1278.3	1283.6	1285.4
7.5°	1255.7	1260.9	1273.1	1280.0	1281.9
10°	1240.1	1247.1	1262.7	1273.1	1276.5
12.5°	1220.9	1231.3	1250.5	1264.4	1267.9
15°	1196.7	1210.5	1233.0	1250.5	1255.7
17.5°	1168.7	1186.1	1214.0	1235.0	1241.9
20°	1139.1	1156.6	1191.5	1215.7	1224.4
22.5°	1104.5	1127.0	1167.0	1194.9	1201.9
25°	1067.9	1093.9	1137.4	1168.7	1179.1
27.5°	1027.9	1059.2	1106.2	1144.5	1153.2
30°	986.1	1019.2	1073.1	1114.9	1125.3
32.5°	942.6	980.9	1038.3	1085.2	1099.3
35°	899.1	937.4	1000.0	1052.3	1067.9
37.5°	848.7	893.9	963.6	1017.5	1036.5
40°	805.2	848.7	923.6	982.7	1001.9
42.5°	756.5	803.5	881.8	946.1	968.8
45°	707.8	758.3	841.8	909.7	932.2
47.5°	662.6	713.0	800.0	871.4	893.9
50°	615.6	667.8	758.3	831.4	853.9
52.5°	565.2	622.6	716.5	789.6	815.8
55°	520.0	577.4	671.3	747.9	774.0
57.5°	473.0	532.1	629.7	702.6	727.1
60°	429.5	486.9	582.7	653.9	681.9
62.5°	382.6	441.7	535.6	605.3	631.4
65°	339.1	396.6	488.6	556.6	580.8
67.5°	295.6	353.1	439.9	504.4	532.1
70°	252.1	309.7	389.5	452.3	476.5
72.5°	214.0	264.4	340.8	398.4	420.9
75°	172.2	222.7	286.9	337.4	347.8
77.5°	133.9	179.2	233.1	255.6	259.2
80°	99.1	133.9	170.5	175.7	175.7
82.5°	66.0	92.2	106.0	107.8	106.0
85°	40.0	48.7	50.4	43.5	40.0
87.5°	13.9	13.9	8.7	5.2	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)