

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: P475508

Luminaire Tested: **14CZ2-44-SQR-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475508
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-44-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

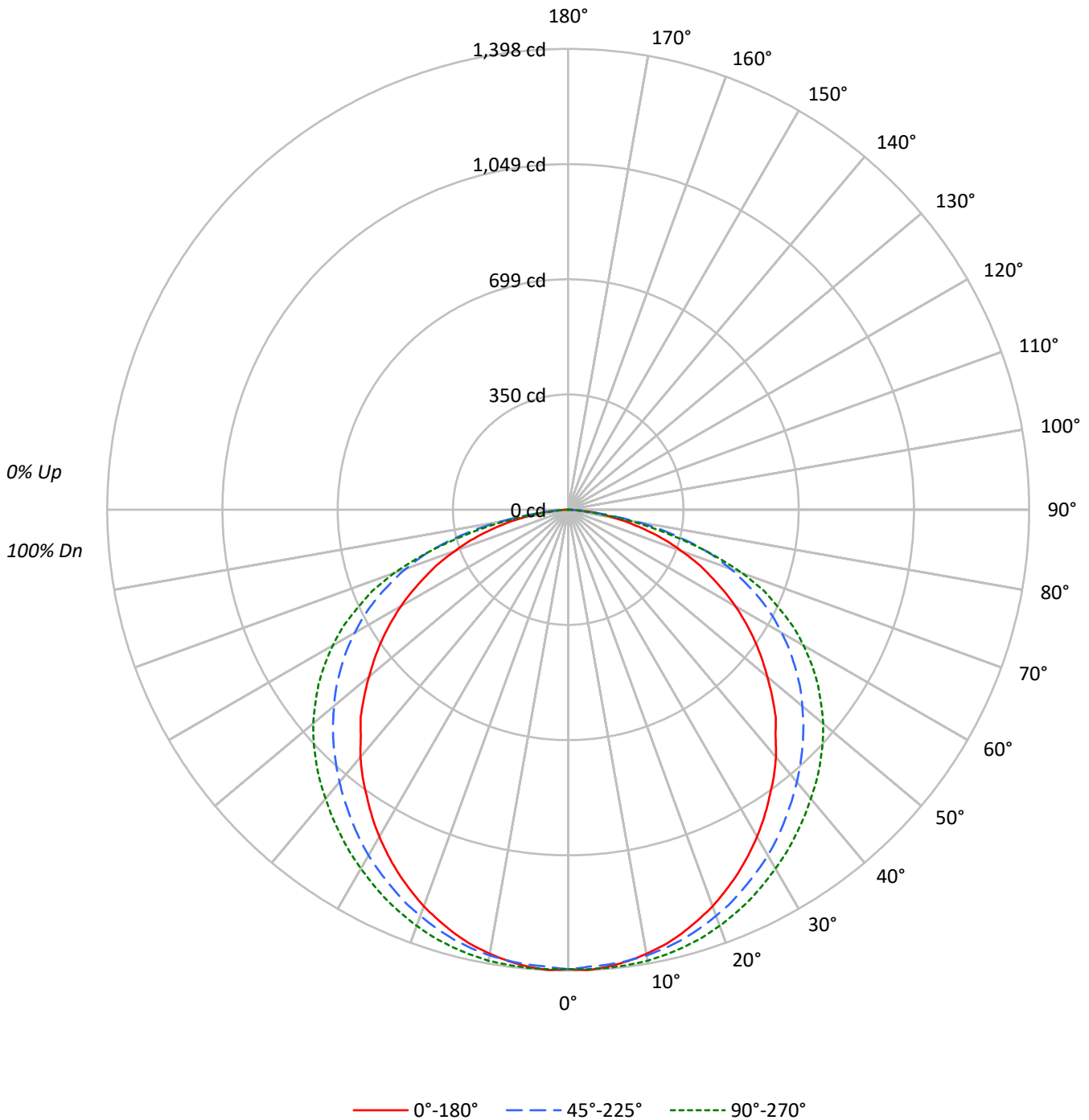
Lumens per Lamp: N/A
Luminaire Lumens: 4377.0 lumens
Efficiency: N/A
Efficacy: 126.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.34 / 1.43
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 34.6
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°	3751	3751	3751
5°	3759	3742	3769
10°	3738	3752	3796
15°	3708	3757	3822
20°	3667	3755	3847
25°	3615	3754	3875
30°	3560	3764	3906
35°	3496	3768	3955
40°	3443	3790	4020
45°	3386	3828	4115
50°	3301	3880	4227
55°	3235	3948	4337
60°	3153	4024	4436
65°	3030	4092	4486
70°	2869	4123	4405
75°	2621	3983	3803
80°	2202	3256	2834
85°	1602	1639	1068



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.4	3.0
10°-20°	381.6	8.7
20°-30°	583.4	13.3
30°-40°	716.0	16.4
40°-50°	770.0	17.6
50°-60°	739.2	16.9
60°-70°	612.4	14.0
70°-80°	367.0	8.4
80°-90°	75.1	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°	1097.3	25.1
0°-40°	1813.3	41.4
0°-60°	3322.5	75.9
0°-90°	4377.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4377.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1394	1394	1394	1394	1394	
5°	1392	1389	1385	1397	1395	132
15°	1331	1337	1348	1369	1372	375
25°	1217	1237	1264	1298	1305	561
35°	1064	1100	1147	1191	1204	666
45°	890	937	1006	1062	1081	684
55°	690	755	842	903	924	616
65°	476	554	643	693	704	472
75°	252	329	383	374	366	267
85°	52	75	53	36	35	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1394.1	1394.1	1394.1	1394.1	1394.1
2.5°	1397.8	1394.1	1387.9	1397.8	1395.3
5°	1391.6	1389.1	1385.4	1396.6	1395.3
7.5°	1381.7	1381.7	1380.5	1394.1	1392.8
10°	1368.1	1370.6	1373.1	1389.1	1389.1
12.5°	1352.1	1354.5	1362.0	1380.5	1381.7
15°	1331.1	1337.2	1348.4	1369.4	1371.8
17.5°	1306.3	1316.2	1331.1	1355.8	1359.5
20°	1280.4	1291.5	1311.3	1338.5	1343.4
22.5°	1249.5	1265.6	1290.3	1318.7	1324.9
25°	1217.4	1237.1	1264.3	1297.7	1305.1
27.5°	1182.7	1206.2	1238.4	1273.0	1281.6
30°	1145.7	1172.9	1211.2	1248.2	1256.9
32.5°	1106.1	1138.3	1180.3	1221.1	1232.2
35°	1064.1	1099.9	1146.9	1191.4	1203.8
37.5°	1023.3	1061.6	1113.5	1161.7	1175.3
40°	980.1	1020.8	1078.9	1129.6	1144.4
42.5°	930.6	980.1	1043.1	1097.5	1114.8
45°	889.8	936.8	1006.0	1061.6	1081.4
47.5°	839.2	893.5	967.7	1027.0	1046.8
50°	788.5	850.3	926.9	988.7	1009.7
52.5°	739.1	802.1	887.4	947.9	966.5
55°	689.6	755.1	841.6	903.4	924.4
57.5°	637.7	709.4	797.1	858.9	876.2
60°	585.8	657.5	747.7	807.0	824.3
62.5°	531.4	608.1	698.3	752.7	770.0
65°	475.8	553.7	642.7	693.3	704.5
67.5°	423.9	503.0	583.3	630.3	641.4
70°	364.6	448.6	524.0	558.6	559.9
72.5°	310.2	388.1	459.8	469.6	467.2
75°	252.1	328.7	383.1	374.5	365.8
77.5°	195.3	273.1	301.6	276.8	270.7
80°	142.1	212.6	210.1	186.6	182.9
82.5°	97.6	147.1	121.1	98.9	91.5
85°	51.9	75.4	53.1	35.8	34.6
87.5°	19.8	18.5	11.1	7.4	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)