

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: P475293

Luminaire Tested: **22CZ2-44HE-SQR-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475293
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-44HE-SQR-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4421.2 lumens
Efficiency: N/A
Efficacy: 134.8 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

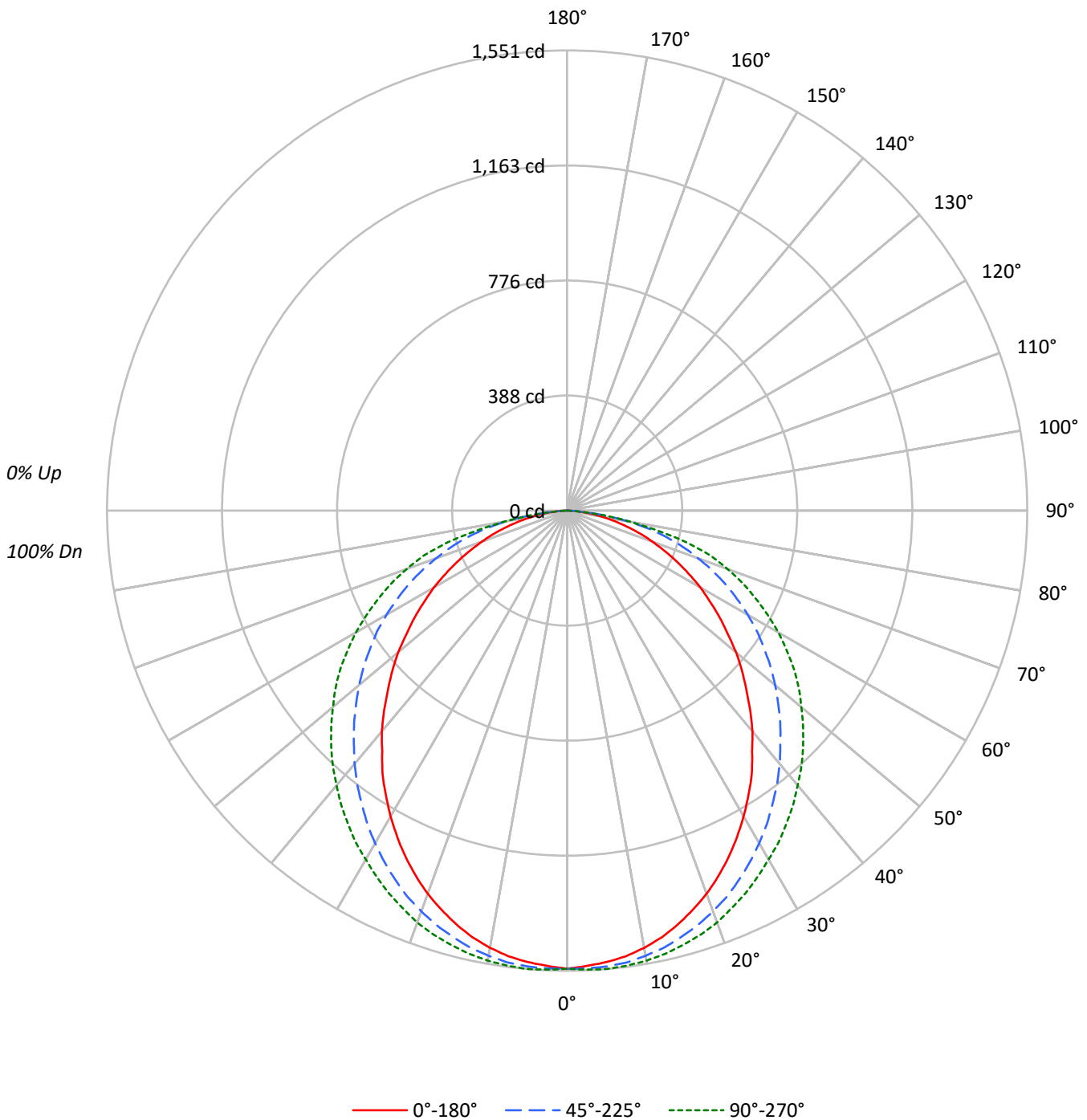
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	4156	4156	4156
5°	4126	4166	4189
10°	4089	4163	4209
15°	4022	4145	4221
20°	3936	4117	4231
25°	3826	4075	4224
30°	3697	4023	4219
35°	3564	3963	4233
40°	3413	3914	4246
45°	3250	3865	4281
50°	3110	3830	4313
55°	2943	3800	4381
60°	2789	3784	4428
65°	2605	3754	4462
70°	2393	3698	4523
75°	2161	3599	4363
80°	1853	3188	3285
85°	1491	1877	1491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.4	3.3
10°-20°	418.6	9.5
20°-30°	628.8	14.2
30°-40°	749.9	17.0
40°-50°	775.3	17.5
50°-60°	712.8	16.1
60°-70°	567.4	12.8
70°-80°	346.7	7.8
80°-90°	75.3	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°	1193.8	27.0
0°-40°	1943.7	44.0
0°-60°	3431.8	77.6
0°-90°	4421.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4421.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1544	1544	1544	1544	1544	
5°	1528	1532	1542	1549	1551	145
15°	1444	1460	1488	1509	1515	407
25°	1288	1320	1372	1410	1423	593
35°	1085	1131	1206	1270	1288	677
45°	854	915	1016	1098	1125	660
55°	627	697	810	902	934	561
65°	409	479	590	672	701	405
75°	208	269	346	407	420	221
85°	48	59	61	52	48	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1544.4	1544.4	1544.4	1544.4	1544.4
2.5°	1536.0	1538.1	1544.4	1548.8	1548.8
5°	1527.6	1531.8	1542.3	1548.8	1550.9
7.5°	1515.1	1521.4	1536.0	1544.4	1546.7
10°	1496.3	1504.7	1523.5	1536.0	1540.2
12.5°	1473.1	1485.6	1508.8	1525.6	1529.7
15°	1443.8	1460.5	1487.7	1508.8	1515.1
17.5°	1410.1	1431.0	1464.7	1490.0	1498.4
20°	1374.4	1395.5	1437.5	1466.8	1477.3
22.5°	1332.6	1359.8	1408.1	1441.7	1450.1
25°	1288.5	1319.8	1372.3	1410.1	1422.7
27.5°	1240.2	1278.0	1334.7	1380.9	1391.3
30°	1189.8	1229.7	1294.7	1345.1	1357.7
32.5°	1137.3	1183.5	1252.7	1309.4	1326.3
35°	1084.8	1131.0	1206.5	1269.7	1288.5
37.5°	1024.0	1078.6	1162.6	1227.6	1250.6
40°	971.5	1024.0	1114.3	1185.6	1208.8
42.5°	912.8	969.4	1063.9	1141.5	1168.9
45°	854.0	914.9	1015.6	1097.6	1124.8
47.5°	799.5	860.3	965.3	1051.4	1078.6
50°	742.8	805.7	914.9	1003.1	1030.3
52.5°	682.0	751.2	864.5	952.7	984.3
55°	627.4	696.6	809.9	902.3	933.9
57.5°	570.7	642.0	759.8	847.8	877.3
60°	518.3	587.5	703.1	789.0	822.7
62.5°	461.6	532.9	646.2	730.3	761.8
65°	409.1	478.6	589.6	671.5	700.8
67.5°	356.7	426.1	530.8	608.6	642.0
70°	304.2	373.6	470.0	545.7	574.9
72.5°	258.2	319.0	411.2	480.7	507.8
75°	207.8	268.7	346.2	407.0	419.6
77.5°	161.6	216.2	281.2	308.4	312.8
80°	119.6	161.6	205.7	212.0	212.0
82.5°	79.6	111.2	127.9	130.0	127.9
85°	48.3	58.7	60.8	52.5	48.3
87.5°	16.7	16.7	10.4	6.3	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)