

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: P475177

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475177
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-44HE-HRP-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3769.7 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

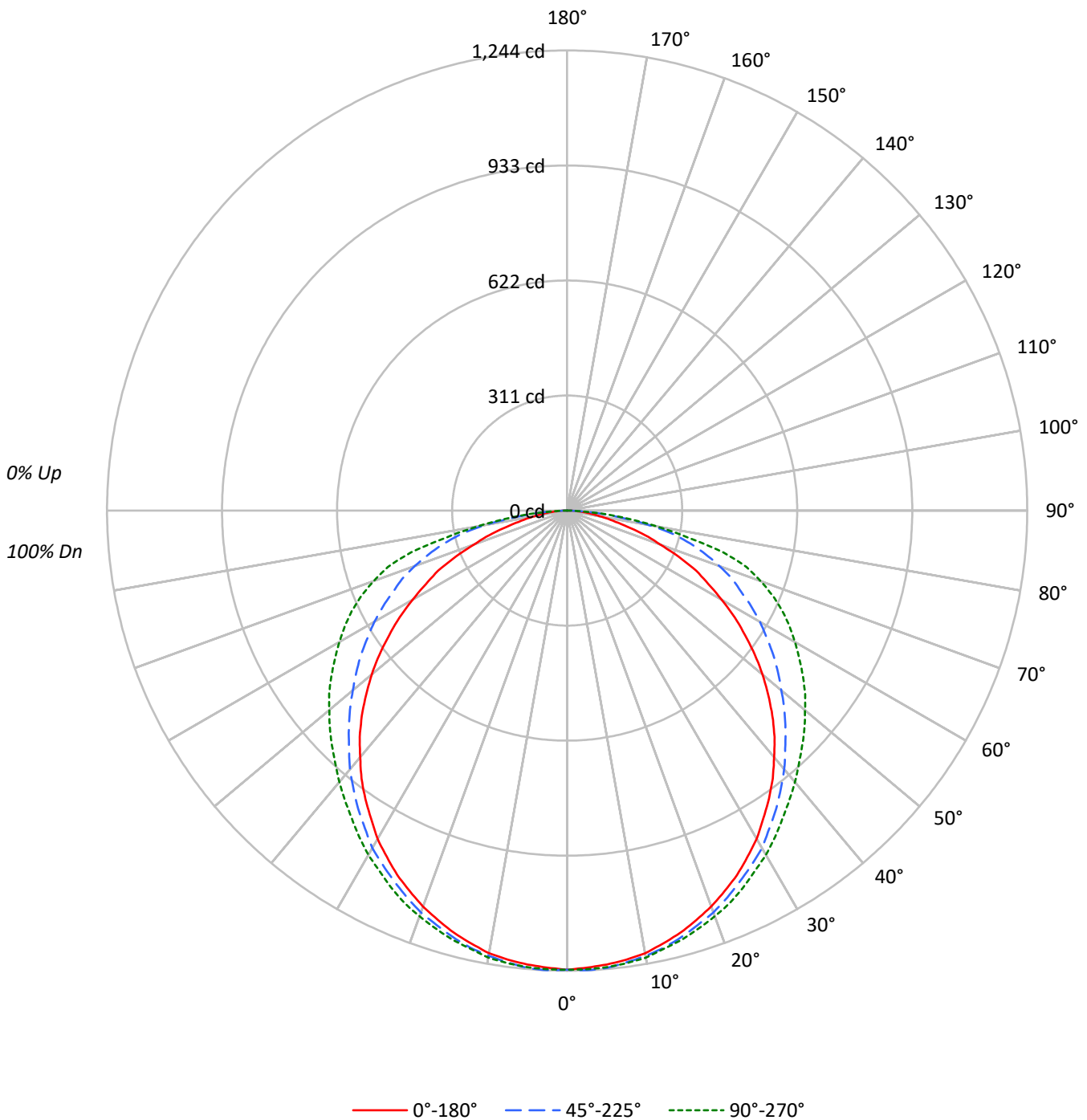
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73		80	75	71		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	69	59	52	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	39		50	43	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27		39	32	27		38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3340	3340	3340
5°	3327	3353	3347
10°	3321	3340	3353
15°	3292	3326	3346
20°	3262	3310	3343
25°	3227	3283	3340
30°	3185	3273	3340
35°	3124	3234	3336
40°	3057	3208	3366
45°	2987	3177	3420
50°	2887	3166	3514
55°	2755	3191	3648
60°	2598	3238	3827
65°	2453	3301	4089
70°	2096	3443	4378
75°	1756	3586	4550
80°	1440	3464	3795
85°	1244	2569	2788



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.6	3.1
10°-20°	336.5	8.9
20°-30°	510.0	13.5
30°-40°	615.8	16.3
40°-50°	647.1	17.2
50°-60°	608.9	16.2
60°-70°	507.7	13.5
70°-80°	336.4	8.9
80°-90°	89.6	2.4
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°	964.2	25.6
0°-40°	1580.0	41.9
0°-60°	2836.0	75.2
0°-90°	3769.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3769.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1241	1241	1241	1241	1241	
5°	1232	1234	1241	1241	1239	117
15°	1182	1187	1194	1199	1201	333
25°	1087	1094	1106	1120	1125	500
35°	951	961	985	1006	1015	595
45°	785	796	835	877	899	604
55°	587	614	680	749	778	525
65°	385	418	518	604	642	375
75°	169	236	345	416	438	183
85°	40	62	83	90	90	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1241.2	1241.2	1241.2	1241.2	1241.2
2.5°	1236.6	1238.9	1243.8	1243.8	1241.2
5°	1231.8	1234.1	1241.2	1241.2	1238.9
7.5°	1224.6	1227.2	1231.8	1236.6	1234.1
10°	1215.2	1217.5	1222.3	1227.2	1227.2
12.5°	1198.6	1200.9	1210.4	1212.9	1212.9
15°	1181.8	1186.6	1193.8	1198.6	1200.9
17.5°	1160.6	1165.2	1174.6	1184.3	1184.3
20°	1139.2	1143.8	1155.8	1165.2	1167.5
22.5°	1112.9	1120.0	1132.0	1143.8	1148.6
25°	1086.9	1094.0	1105.8	1120.0	1124.9
27.5°	1055.8	1062.9	1079.7	1096.3	1098.6
30°	1024.9	1032.0	1053.4	1067.7	1074.9
32.5°	986.9	996.3	1017.7	1039.2	1046.3
35°	951.1	960.8	984.6	1006.0	1015.4
37.5°	913.1	922.6	948.8	975.1	986.9
40°	870.3	882.3	913.1	941.7	958.3
42.5°	829.9	841.9	872.8	910.8	927.4
45°	784.8	796.5	834.8	877.4	898.8
47.5°	737.1	751.4	796.5	849.1	870.3
50°	689.6	706.2	756.2	815.7	839.4
52.5°	639.6	661.1	718.2	782.5	810.8
55°	587.3	613.6	680.2	749.1	777.6
57.5°	537.3	561.3	639.6	713.4	744.2
60°	482.7	513.6	601.6	677.6	711.1
62.5°	430.4	463.8	561.3	642.2	677.6
65°	385.3	418.4	518.4	603.9	642.2
67.5°	325.8	371.0	482.7	563.6	601.6
70°	266.4	328.1	437.6	520.7	556.4
72.5°	221.2	280.6	392.4	475.6	509.0
75°	168.9	235.5	344.9	416.1	437.6
77.5°	126.0	194.9	294.9	330.6	332.9
80°	92.9	149.8	223.5	235.5	244.9
82.5°	64.3	104.6	145.2	159.2	164.1
85°	40.3	61.8	83.2	90.3	90.3
87.5°	21.4	23.7	28.6	28.6	28.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)