

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: P475113

Luminaire Tested: **22CZ2-44-HRP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475113
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-44-HRP-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

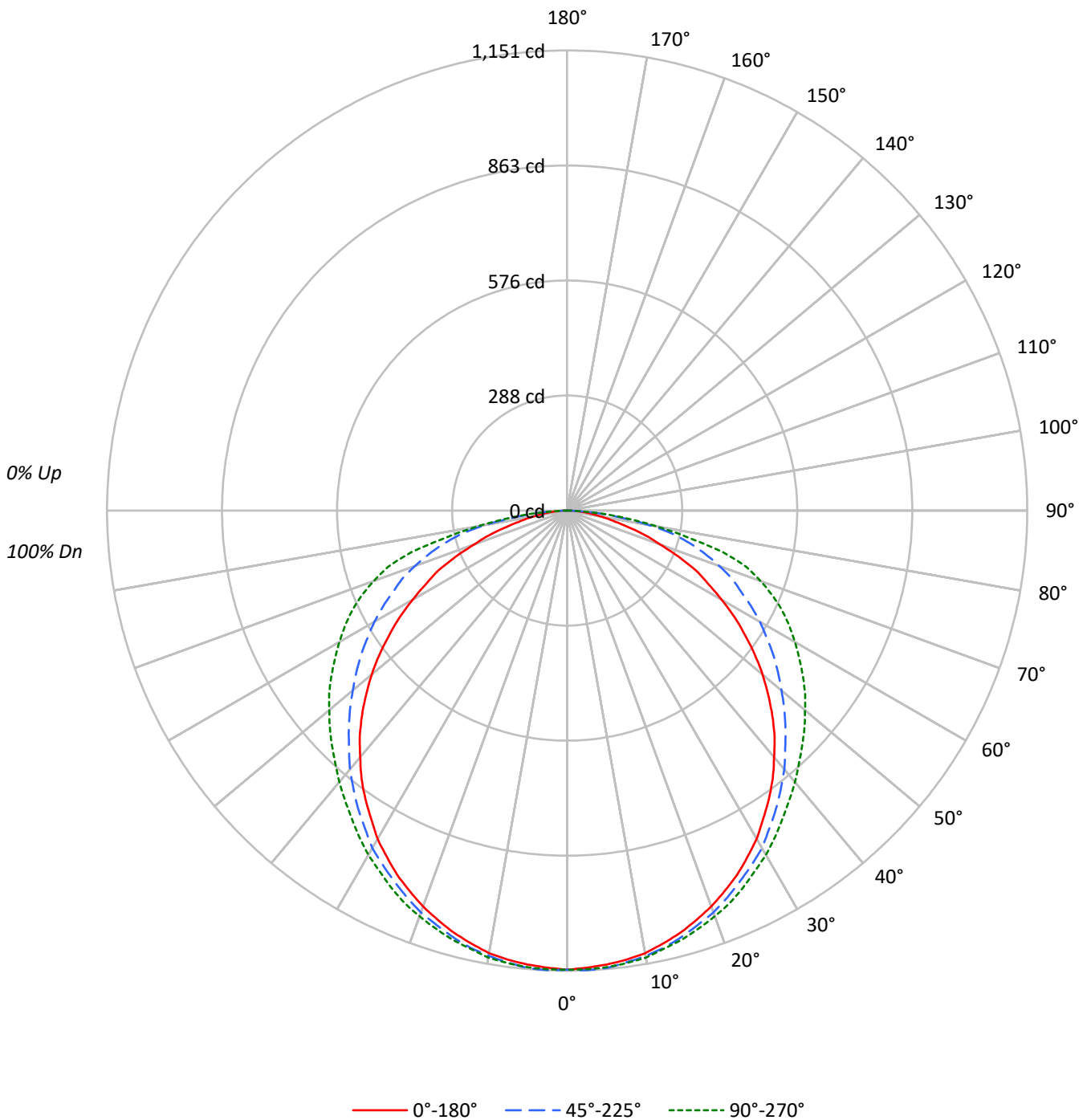
Lumens per Lamp: N/A
Luminaire Lumens: 3487.9 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.2
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°	3090	3090	3090
5°	3079	3102	3096
10°	3072	3090	3102
15°	3046	3077	3095
20°	3018	3062	3093
25°	2986	3038	3090
30°	2947	3029	3090
35°	2891	2992	3086
40°	2829	2968	3114
45°	2763	2939	3165
50°	2671	2929	3251
55°	2549	2952	3376
60°	2404	2996	3541
65°	2269	3054	3783
70°	1939	3185	4050
75°	1625	3318	4209
80°	1331	3205	3512
85°	1152	2377	2581



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.9	3.1
10°-20°	311.4	8.9
20°-30°	471.9	13.5
30°-40°	569.8	16.3
40°-50°	598.7	17.2
50°-60°	563.3	16.2
60°-70°	469.7	13.5
70°-80°	311.3	8.9
80°-90°	82.9	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°	892.1	25.6
0°-40°	1461.9	41.9
0°-60°	2624.0	75.2
0°-90°	3487.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3487.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1148	1148	1148	1148	1148	
5°	1140	1142	1148	1148	1146	108
15°	1093	1098	1104	1109	1111	308
25°	1006	1012	1023	1036	1041	463
35°	880	889	911	931	940	550
45°	726	737	772	812	832	559
55°	543	568	629	693	720	486
65°	356	387	480	559	594	347
75°	156	218	319	385	405	170
85°	37	57	77	84	84	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1148.4	1148.4	1148.4	1148.4	1148.4
2.5°	1144.2	1146.3	1150.8	1150.8	1148.4
5°	1139.7	1141.8	1148.4	1148.4	1146.3
7.5°	1133.1	1135.4	1139.7	1144.2	1141.8
10°	1124.3	1126.5	1131.0	1135.4	1135.4
12.5°	1109.0	1111.1	1119.9	1122.2	1122.2
15°	1093.4	1097.9	1104.5	1109.0	1111.1
17.5°	1073.8	1078.1	1086.8	1095.8	1095.8
20°	1054.0	1058.3	1069.3	1078.1	1080.2
22.5°	1029.7	1036.3	1047.4	1058.3	1062.7
25°	1005.6	1012.2	1023.1	1036.3	1040.8
27.5°	976.8	983.4	999.0	1014.3	1016.5
30°	948.3	954.9	974.7	987.9	994.5
32.5°	913.1	921.8	941.6	961.5	968.1
35°	880.0	889.0	910.9	930.8	939.5
37.5°	844.9	853.6	877.9	902.2	913.1
40°	805.2	816.3	844.9	871.3	886.6
42.5°	767.9	779.0	807.5	842.7	858.1
45°	726.1	737.0	772.4	811.8	831.6
47.5°	682.0	695.2	737.0	785.6	805.2
50°	638.1	653.4	699.7	754.7	776.6
52.5°	591.8	611.6	664.5	724.0	750.2
55°	543.4	567.7	629.3	693.1	719.5
57.5°	497.1	519.3	591.8	660.0	688.6
60°	446.6	475.2	556.6	627.0	657.9
62.5°	398.2	429.1	519.3	594.1	627.0
65°	356.4	387.1	479.7	558.8	594.1
67.5°	301.4	343.2	446.6	521.5	556.6
70°	246.4	303.6	404.8	481.8	514.8
72.5°	204.7	259.7	363.1	440.0	470.9
75°	156.3	217.9	319.1	385.0	404.8
77.5°	116.6	180.4	272.9	305.9	308.1
80°	85.9	138.6	206.8	217.9	226.6
82.5°	59.5	96.8	134.3	147.3	151.8
85°	37.3	57.1	77.0	83.6	83.6
87.5°	19.8	22.0	26.4	26.4	26.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)