

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: P475011

Luminaire Tested: **22CZ2-60VHE-RDP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475011
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-60VHE-RDP-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3905.9 lumens
Efficiency: N/A
Efficacy: 92.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

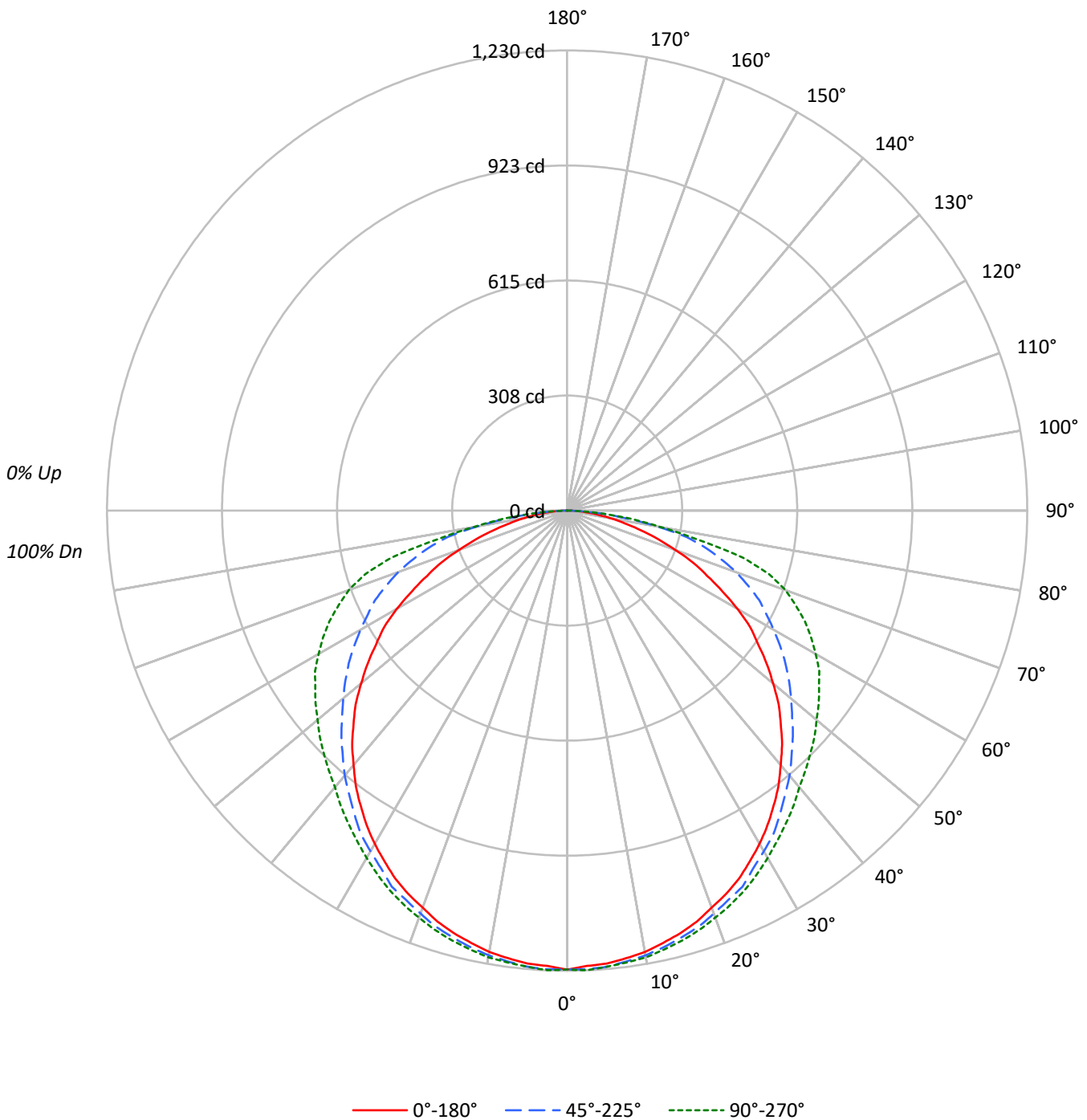
Input Watts (W): 42.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	92	89		92	89	86		88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72		80	75	71		76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60		70	64	59		67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50		61	55	50		59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33		45	38	33		44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29		41	34	29		40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26		38	31	26		37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3301	3301	3301
5°	3283	3306	3306
10°	3274	3298	3313
15°	3258	3290	3314
20°	3234	3283	3316
25°	3225	3293	3327
30°	3196	3267	3330
35°	3162	3256	3351
40°	3119	3250	3391
45°	3073	3248	3499
50°	3007	3271	3644
55°	2926	3343	3855
60°	2830	3433	4129
65°	2634	3605	4465
70°	2419	3776	4884
75°	2122	3972	5050
80°	1827	3783	3964
85°	1596	2751	3013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.1	3.0
10°-20°	333.2	8.5
20°-30°	508.4	13.0
30°-40°	620.7	15.9
40°-50°	663.7	17.0
50°-60°	640.6	16.4
60°-70°	551.5	14.1
70°-80°	373.2	9.6
80°-90°	98.5	2.5
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°	957.7	24.5
0°-40°	1578.4	40.4
0°-60°	2882.8	73.8
0°-90°	3905.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3905.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1227	1227	1227	1227	1227	
5°	1215	1218	1224	1224	1224	115
15°	1170	1172	1181	1187	1189	330
25°	1086	1092	1109	1115	1121	500
35°	962	971	991	1011	1020	602
45°	807	822	853	896	919	623
55°	624	644	713	784	822	559
65°	414	454	566	655	701	411
75°	204	270	382	460	486	219
85°	52	72	89	92	98	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1226.8	1226.8	1226.8	1226.8	1226.8
2.5°	1218.3	1221.1	1226.8	1226.8	1229.7
5°	1215.4	1218.3	1224.0	1224.0	1224.0
7.5°	1206.9	1209.7	1215.4	1218.3	1218.3
10°	1198.0	1201.2	1206.9	1209.7	1212.6
12.5°	1183.7	1186.6	1195.2	1201.2	1201.2
15°	1169.5	1172.3	1180.9	1186.6	1189.4
17.5°	1152.0	1158.0	1166.6	1172.3	1175.2
20°	1129.2	1134.9	1146.3	1155.2	1158.0
22.5°	1109.2	1114.9	1126.3	1134.9	1140.6
25°	1086.1	1091.8	1109.2	1114.9	1120.6
27.5°	1057.3	1063.2	1077.5	1088.9	1097.5
30°	1028.7	1034.4	1051.5	1066.1	1071.8
32.5°	997.0	1005.6	1025.8	1037.3	1045.8
35°	962.5	971.0	991.3	1011.3	1020.1
37.5°	928.2	936.8	956.8	982.7	994.2
40°	887.9	899.4	925.1	959.6	965.3
42.5°	850.5	864.8	887.9	928.2	942.5
45°	807.4	821.7	853.4	896.5	919.3
47.5°	767.2	781.4	816.0	867.7	896.5
50°	718.3	738.3	781.4	842.0	870.5
52.5°	672.4	689.5	747.2	813.1	847.7
55°	623.6	643.5	712.6	784.3	821.7
57.5°	580.4	597.6	675.2	755.8	798.9
60°	525.9	548.8	637.8	724.1	767.2
62.5°	468.2	502.8	600.4	689.5	735.5
65°	413.7	454.0	566.2	655.0	701.2
67.5°	364.9	408.0	523.1	617.8	661.0
70°	307.5	362.0	479.9	571.9	620.7
72.5°	255.8	316.1	431.1	523.1	566.2
75°	204.1	270.1	382.0	459.7	485.7
77.5°	157.9	221.3	327.5	350.6	353.5
80°	117.9	175.3	244.1	247.0	255.8
82.5°	80.5	123.6	157.9	172.4	175.3
85°	51.7	71.9	89.1	91.9	97.6
87.5°	23.1	26.0	31.7	28.8	28.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)