

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: P475062

Luminaire Tested: **22CZ2-20VHE-RDP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475062  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-20VHE-RDP-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP  
INSERT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1390.1 lumens  
Efficiency: N/A  
Efficacy: 100.7 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

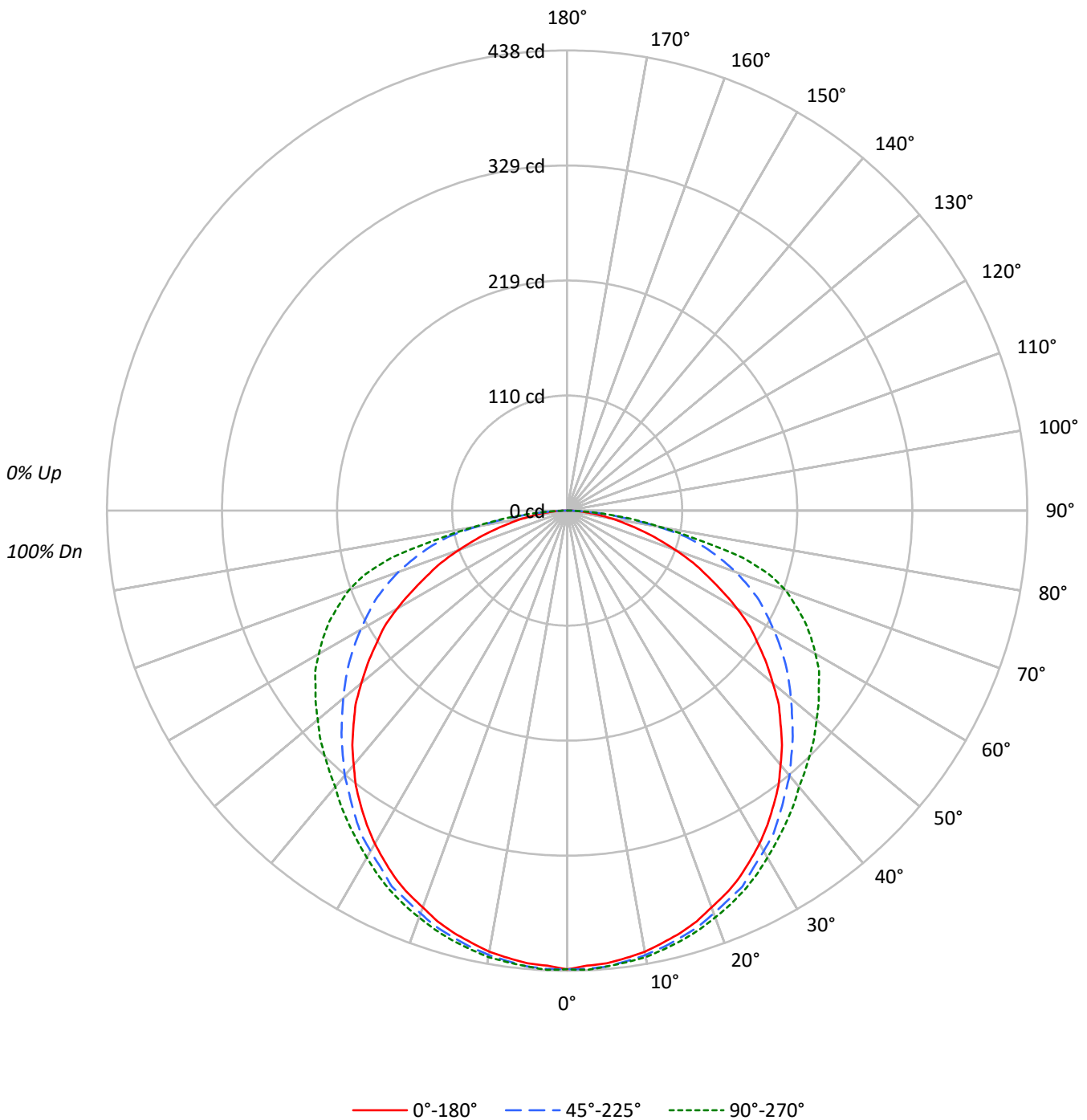
Input Watts (W): 13.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1175	1175	1175
5°	1169	1177	1177
10°	1165	1174	1179
15°	1159	1171	1179
20°	1151	1168	1180
25°	1148	1172	1184
30°	1138	1163	1185
35°	1125	1159	1193
40°	1110	1156	1207
45°	1094	1156	1245
50°	1070	1164	1297
55°	1041	1190	1372
60°	1008	1222	1469
65°	937	1283	1589
70°	861	1344	1738
75°	756	1414	1797
80°	651	1347	1410
85°	568	979	1074



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.3	3.0
10°-20°	118.6	8.5
20°-30°	180.9	13.0
30°-40°	220.9	15.9
40°-50°	236.2	17.0
50°-60°	228.0	16.4
60°-70°	196.3	14.1
70°-80°	132.8	9.6
80°-90°	35.1	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°	340.8	24.5
0°-40°	561.7	40.4
0°-60°	1026.0	73.8
0°-90°	1390.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1390.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	437	437	437	437	437	
5°	433	434	436	436	436	41
15°	416	417	420	422	423	117
25°	386	389	395	397	399	178
35°	342	346	353	360	363	214
45°	287	292	304	319	327	222
55°	222	229	254	279	292	199
65°	147	162	202	233	250	146
75°	73	96	136	164	173	78
85°	18	26	32	33	35	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	436.6	436.6	436.6	436.6	436.6
2.5°	433.6	434.6	436.6	436.6	437.6
5°	432.6	433.6	435.6	435.6	435.6
7.5°	429.5	430.5	432.6	433.6	433.6
10°	426.4	427.5	429.5	430.5	431.5
12.5°	421.3	422.3	425.3	427.5	427.5
15°	416.2	417.2	420.3	422.3	423.3
17.5°	410.0	412.1	415.2	417.2	418.2
20°	401.9	403.9	408.0	411.1	412.1
22.5°	394.8	396.8	400.9	403.9	405.9
25°	386.5	388.6	394.8	396.8	398.8
27.5°	376.3	378.4	383.5	387.5	390.6
30°	366.1	368.1	374.2	379.4	381.4
32.5°	354.8	357.9	365.1	369.2	372.2
35°	342.5	345.6	352.8	359.9	363.1
37.5°	330.3	333.4	340.5	349.7	353.8
40°	316.0	320.1	329.2	341.5	343.5
42.5°	302.7	307.8	316.0	330.3	335.4
45°	287.4	292.4	303.7	319.1	327.2
47.5°	273.0	278.1	290.4	308.8	319.1
50°	255.7	262.8	278.1	299.7	309.8
52.5°	239.3	245.4	265.9	289.4	301.7
55°	221.9	229.0	253.6	279.1	292.4
57.5°	206.6	212.7	240.3	269.0	284.3
60°	187.2	195.3	227.0	257.7	273.0
62.5°	166.6	178.9	213.7	245.4	261.7
65°	147.2	161.6	201.5	233.1	249.6
67.5°	129.9	145.2	186.2	219.9	235.2
70°	109.4	128.8	170.8	203.5	220.9
72.5°	91.0	112.5	153.4	186.2	201.5
75°	72.7	96.1	136.0	163.6	172.8
77.5°	56.2	78.7	116.5	124.8	125.8
80°	42.0	62.4	86.9	87.9	91.0
82.5°	28.7	44.0	56.2	61.4	62.4
85°	18.4	25.6	31.7	32.7	34.8
87.5°	8.2	9.2	11.3	10.3	10.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)