

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: P475171

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475171
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-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

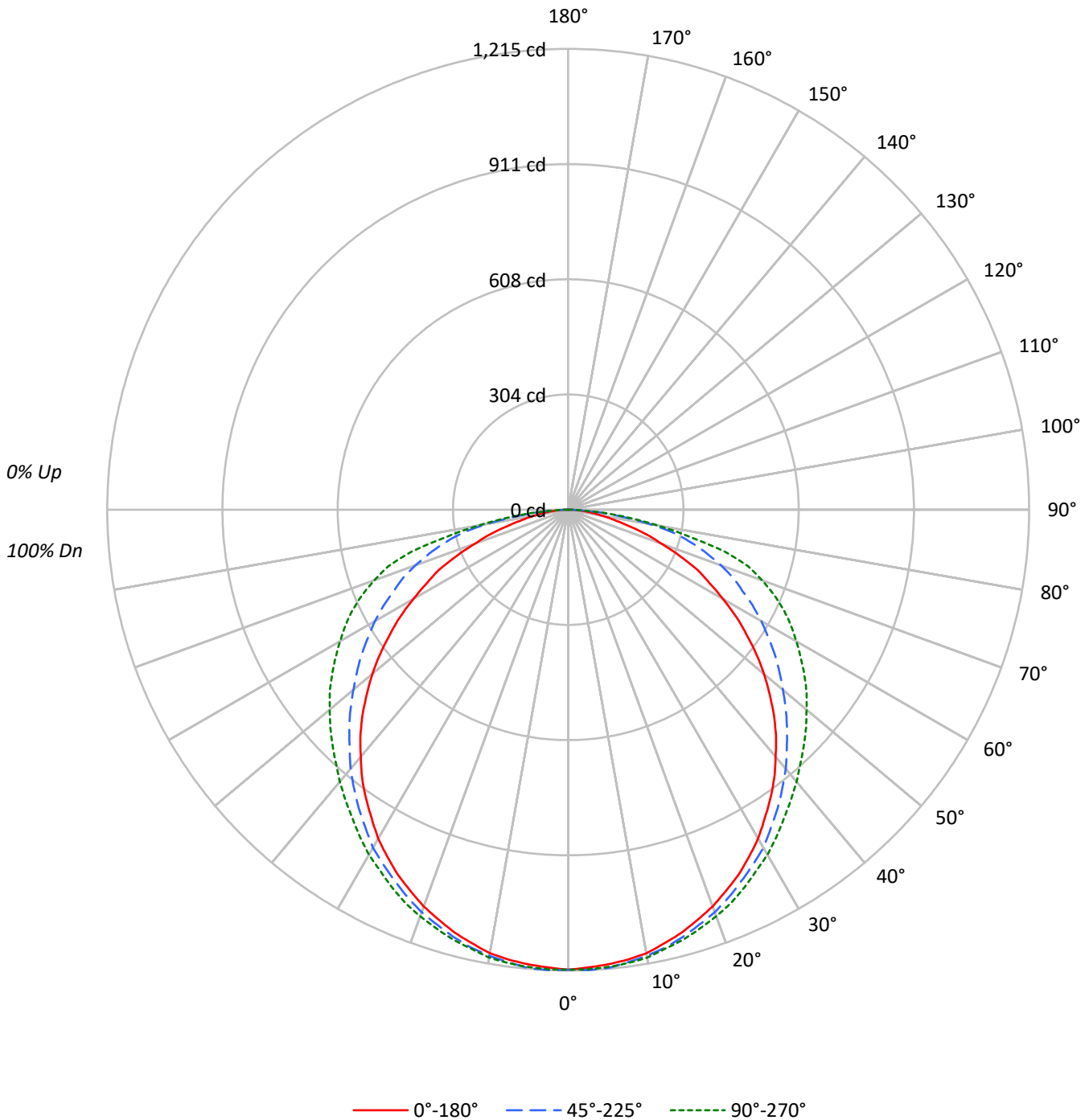
Lumens per Lamp: N/A
Luminaire Lumens: 3683.1 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3263	3263	3263
5°	3251	3276	3270
10°	3244	3263	3276
15°	3217	3249	3269
20°	3187	3234	3267
25°	3153	3208	3263
30°	3111	3198	3263
35°	3053	3160	3259
40°	2987	3134	3289
45°	2918	3104	3342
50°	2821	3093	3433
55°	2692	3118	3565
60°	2538	3164	3739
65°	2397	3225	3995
70°	2047	3364	4278
75°	1716	3504	4445
80°	1406	3384	3708
85°	1216	2510	2723



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.9	3.1
10°-20°	328.8	8.9
20°-30°	498.3	13.5
30°-40°	601.7	16.3
40°-50°	632.2	17.2
50°-60°	594.9	16.2
60°-70°	496.0	13.5
70°-80°	328.7	8.9
80°-90°	87.6	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°	942.0	25.6
0°-40°	1543.7	41.9
0°-60°	2770.8	75.2
0°-90°	3683.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3683.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1213	1213	1213	1213	1213	
5°	1204	1206	1213	1213	1210	114
15°	1155	1159	1166	1171	1173	326
25°	1062	1069	1080	1094	1099	489
35°	929	939	962	983	992	581
45°	767	778	816	857	878	591
55°	574	600	664	732	760	513
65°	376	409	506	590	627	366
75°	165	230	337	407	428	179
85°	39	60	81	88	88	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1212.7	1212.7	1212.7	1212.7	1212.7
2.5°	1208.2	1210.4	1215.2	1215.2	1212.7
5°	1203.5	1205.7	1212.7	1212.7	1210.4
7.5°	1196.5	1199.0	1203.5	1208.2	1205.7
10°	1187.3	1189.5	1194.2	1199.0	1199.0
12.5°	1171.1	1173.3	1182.5	1185.0	1185.0
15°	1154.6	1159.3	1166.3	1171.1	1173.3
17.5°	1133.9	1138.4	1147.6	1157.1	1157.1
20°	1113.0	1117.5	1129.2	1138.4	1140.7
22.5°	1087.3	1094.3	1106.0	1117.5	1122.2
25°	1061.9	1068.8	1080.3	1094.3	1099.0
27.5°	1031.5	1038.5	1054.9	1071.1	1073.4
30°	1001.3	1008.3	1029.2	1043.2	1050.2
32.5°	964.2	973.4	994.3	1015.3	1022.2
35°	929.3	938.7	961.9	982.9	992.1
37.5°	892.1	901.4	927.0	952.7	964.2
40°	850.3	862.0	892.1	920.0	936.3
42.5°	810.9	822.6	852.7	889.9	906.1
45°	766.7	778.2	815.6	857.2	878.2
47.5°	720.1	734.1	778.2	829.6	850.3
50°	673.8	690.0	738.8	796.9	820.1
52.5°	624.9	645.9	701.7	764.5	792.2
55°	573.8	599.5	664.5	731.9	759.8
57.5°	525.0	548.4	624.9	697.0	727.1
60°	471.6	501.8	587.8	662.1	694.7
62.5°	420.5	453.2	548.4	627.4	662.1
65°	376.4	408.8	506.5	590.0	627.4
67.5°	318.3	362.4	471.6	550.6	587.8
70°	260.2	320.6	427.5	508.8	543.7
72.5°	216.1	274.2	383.4	464.6	497.3
75°	165.0	230.1	337.0	406.6	427.5
77.5°	123.1	190.4	288.1	323.0	325.3
80°	90.7	146.3	218.4	230.1	239.3
82.5°	62.8	102.2	141.8	155.6	160.3
85°	39.4	60.3	81.3	88.2	88.2
87.5°	20.9	23.2	27.9	27.9	27.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)