

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: P475138

Luminaire Tested: **22CZ2-20-HRP-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475138
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20-HRP-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

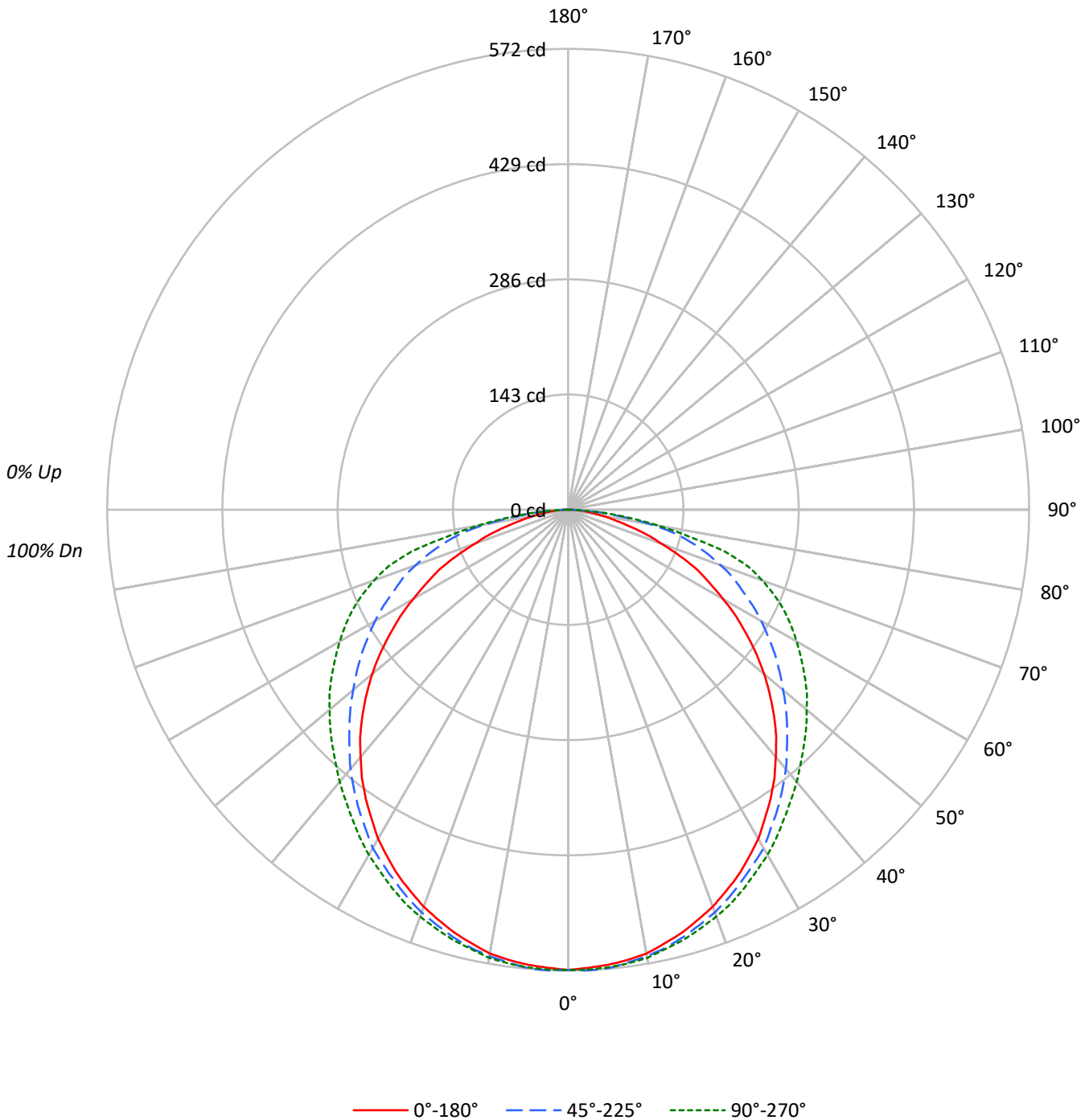
Lumens per Lamp: N/A
Luminaire Lumens: 1735.1 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.2
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	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					100			
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82					82			
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68					68			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56					56			
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36					36			
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31					31			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25					25			
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1537	1537	1537
5°	1532	1543	1540
10°	1528	1537	1543
15°	1515	1531	1540
20°	1501	1523	1539
25°	1485	1511	1537
30°	1466	1507	1537
35°	1438	1489	1535
40°	1407	1476	1550
45°	1375	1462	1574
50°	1329	1457	1617
55°	1268	1469	1679
60°	1196	1490	1762
65°	1129	1519	1882
70°	965	1585	2015
75°	808	1651	2094
80°	662	1595	1746
85°	574	1183	1284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.2	3.1
10°-20°	154.9	8.9
20°-30°	234.7	13.5
30°-40°	283.5	16.3
40°-50°	297.8	17.2
50°-60°	280.2	16.2
60°-70°	233.7	13.5
70°-80°	154.8	8.9
80°-90°	41.3	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°	443.8	25.6
0°-40°	727.2	41.9
0°-60°	1305.3	75.2
0°-90°	1735.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1735.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	571	571	571	571	571	
5°	567	568	571	571	570	54
15°	544	546	550	552	553	153
25°	500	504	509	516	518	230
35°	438	442	453	463	467	274
45°	361	367	384	404	414	278
55°	270	282	313	345	358	242
65°	177	193	239	278	296	173
75°	78	108	159	192	201	84
85°	19	28	38	42	42	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	571.3	571.3	571.3	571.3	571.3
2.5°	569.2	570.2	572.5	572.5	571.3
5°	567.0	568.0	571.3	571.3	570.2
7.5°	563.7	564.8	567.0	569.2	568.0
10°	559.3	560.4	562.6	564.8	564.8
12.5°	551.7	552.7	557.1	558.3	558.3
15°	543.9	546.2	549.5	551.7	552.7
17.5°	534.2	536.3	540.7	545.1	545.1
20°	524.3	526.4	532.0	536.3	537.4
22.5°	512.2	515.5	521.0	526.4	528.7
25°	500.2	503.5	508.9	515.5	517.7
27.5°	485.9	489.2	497.0	504.6	505.7
30°	471.7	475.0	484.9	491.4	494.7
32.5°	454.2	458.6	468.4	478.3	481.6
35°	437.8	442.2	453.2	463.0	467.4
37.5°	420.3	424.6	436.7	448.8	454.2
40°	406.6	406.1	420.3	433.4	441.1
42.5°	382.0	387.5	401.7	419.2	426.9
45°	361.2	366.6	384.2	403.8	413.7
47.5°	339.3	345.8	366.6	390.8	400.6
50°	317.4	325.1	348.1	375.4	386.3
52.5°	294.4	304.3	330.6	360.2	373.2
55°	270.3	282.4	313.1	344.8	357.9
57.5°	247.3	258.3	294.4	328.3	342.5
60°	222.2	236.4	276.9	311.9	327.3
62.5°	198.1	213.5	258.3	295.6	311.9
65°	177.3	192.6	238.6	278.0	295.6
67.5°	150.0	170.7	222.2	259.4	276.9
70°	122.6	151.0	201.4	239.7	256.1
72.5°	101.8	129.2	180.6	218.9	234.3
75°	77.7	108.4	158.8	191.5	201.4
77.5°	58.0	89.7	135.7	152.2	153.2
80°	42.7	68.9	102.9	108.4	112.7
82.5°	29.6	48.1	66.8	73.3	75.5
85°	18.6	28.4	38.3	41.6	41.6
87.5°	9.9	10.9	13.2	13.2	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)