

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: P475143

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475143
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20HE-HRP-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1644.3 lumens
Efficiency: N/A
Efficacy: 109.6 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

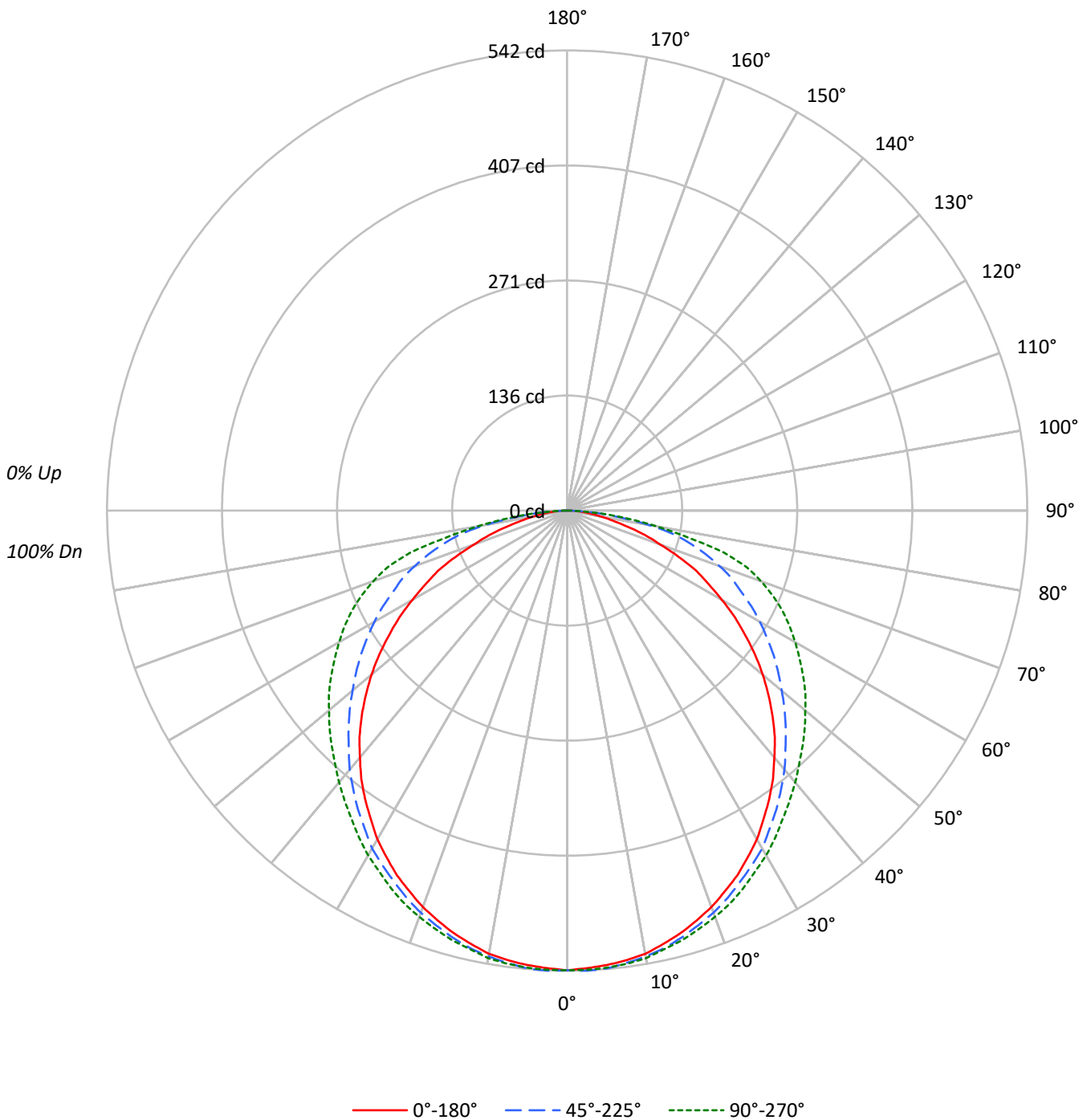
Input Watts (W): 15
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1457	1457	1457
5°	1451	1462	1460
10°	1448	1457	1463
15°	1436	1451	1459
20°	1423	1444	1458
25°	1408	1432	1457
30°	1389	1428	1457
35°	1363	1411	1455
40°	1333	1399	1468
45°	1303	1386	1492
50°	1259	1381	1533
55°	1202	1392	1591
60°	1133	1412	1669
65°	1070	1440	1784
70°	914	1502	1910
75°	766	1565	1985
80°	628	1511	1655
85°	543	1121	1216



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.3	3.1
10°-20°	146.8	8.9
20°-30°	222.5	13.5
30°-40°	268.6	16.3
40°-50°	282.3	17.2
50°-60°	265.6	16.2
60°-70°	221.4	13.5
70°-80°	146.7	8.9
80°-90°	39.1	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°	420.6	25.6
0°-40°	689.2	41.9
0°-60°	1237.1	75.2
0°-90°	1644.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1644.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	541	541	541	541	541	
5°	537	538	541	541	540	51
15°	516	518	521	523	524	145
25°	474	477	482	489	491	218
35°	415	419	430	439	443	259
45°	342	348	364	383	392	264
55°	256	268	297	327	339	229
65°	168	182	226	263	280	163
75°	74	103	150	182	191	80
85°	18	27	36	39	39	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	541.4	541.4	541.4	541.4	541.4
2.5°	539.4	540.4	542.5	542.5	541.4
5°	537.3	538.3	541.4	541.4	540.4
7.5°	534.2	535.3	537.3	539.4	538.3
10°	530.1	531.1	533.2	535.3	535.3
12.5°	522.8	523.8	528.0	529.1	529.1
15°	515.5	517.6	520.7	522.8	523.8
17.5°	506.3	508.3	512.4	516.6	516.6
20°	496.9	498.9	504.1	508.3	509.3
22.5°	485.5	488.6	493.8	498.9	501.0
25°	474.1	477.2	482.3	488.6	490.7
27.5°	460.5	463.6	471.0	478.2	479.2
30°	447.1	450.2	459.5	465.8	468.9
32.5°	430.5	434.6	443.9	453.3	456.4
35°	414.9	419.1	429.5	438.8	442.9
37.5°	398.3	402.4	413.9	425.3	430.5
40°	379.6	384.8	398.3	410.8	418.0
42.5°	362.0	367.3	380.7	397.3	404.5
45°	342.3	347.5	364.1	382.7	392.1
47.5°	321.5	327.8	347.5	370.4	379.6
50°	300.8	308.1	329.9	355.8	366.1
52.5°	279.0	288.4	313.3	341.3	353.7
55°	256.2	267.7	296.7	326.7	339.2
57.5°	234.4	244.8	279.0	311.2	324.6
60°	210.6	224.0	262.4	295.6	310.2
62.5°	187.7	202.3	244.8	280.1	295.6
65°	168.0	182.5	226.1	263.4	280.1
67.5°	142.1	161.8	210.6	245.8	262.4
70°	116.2	143.1	190.9	227.1	242.7
72.5°	96.5	122.4	171.2	207.4	222.0
75°	73.7	102.7	150.5	181.5	190.9
77.5°	55.0	85.0	128.6	144.2	145.2
80°	40.5	65.3	97.5	102.7	106.8
82.5°	28.0	45.6	63.3	69.5	71.6
85°	17.6	26.9	36.3	39.4	39.4
87.5°	9.3	10.4	12.5	12.5	12.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)