

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: P475458

Luminaire Tested: **14CZ2-20-HRP-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475458
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-20-HRP-UNV-L835-CD1-U
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

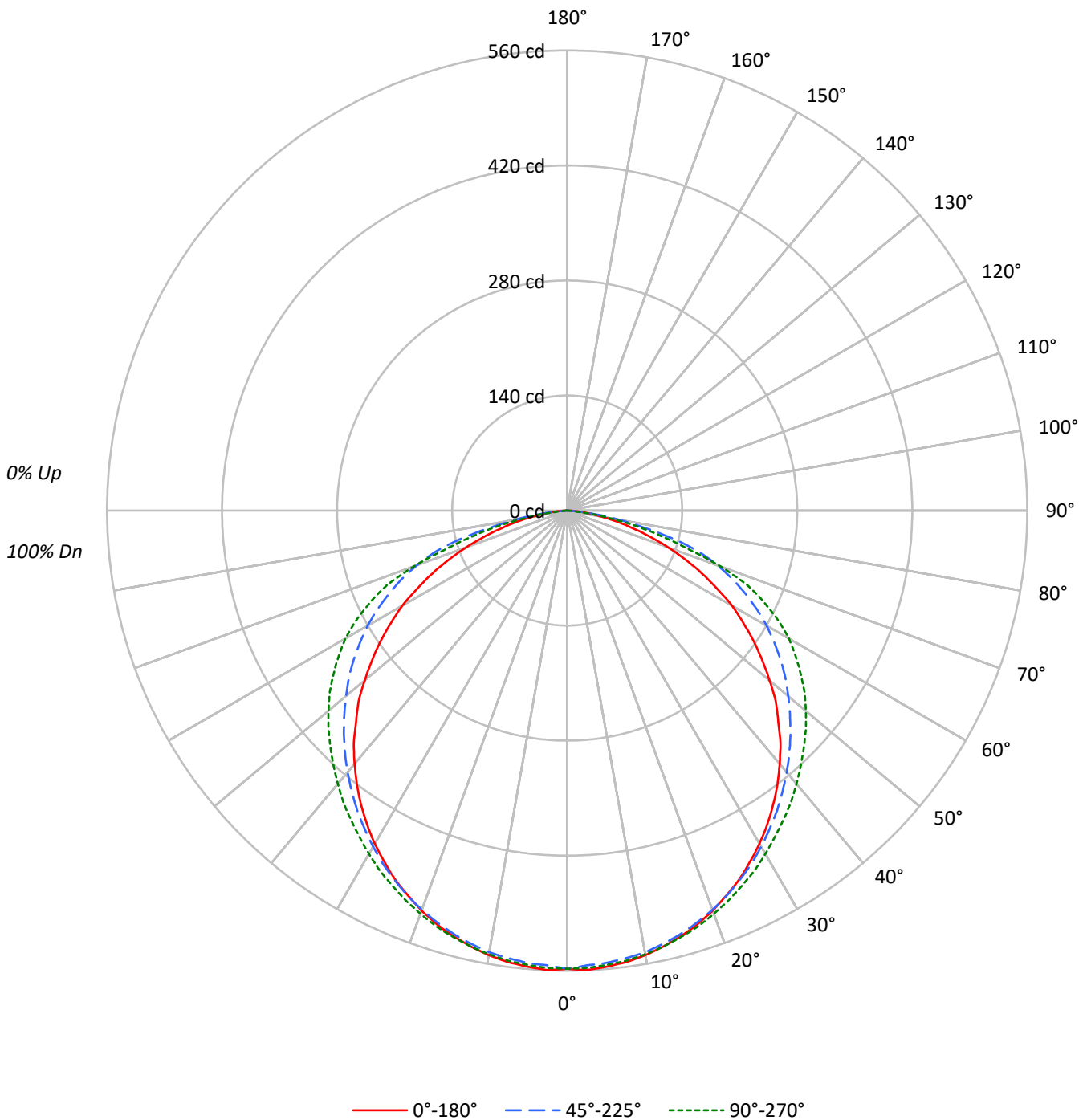
Lumens per Lamp: N/A
Luminaire Lumens: 1666.0 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 15.6
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



TEST NUMBER: P475458
CATALOG NUMBER: 14CZ2-20-HRP-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P475458

CATALOG NUMBER: 14CZ2-20-HRP-UNV-L835-CD1-U

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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	50	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	41	33	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1500	1500	1500
5°	1505	1492	1499
10°	1501	1491	1498
15°	1493	1486	1496
20°	1483	1481	1495
25°	1471	1474	1495
30°	1455	1467	1499
35°	1436	1464	1508
40°	1413	1460	1525
45°	1382	1462	1550
50°	1346	1471	1587
55°	1301	1489	1629
60°	1249	1509	1678
65°	1153	1523	1687
70°	1028	1530	1563
75°	861	1417	1214
80°	654	996	797
85°	460	349	111



TEST NUMBER: P475458

CATALOG NUMBER: 14CZ2-20-HRP-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.8	3.2
10°-20°	151.2	9.1
20°-30°	229.9	13.8
30°-40°	279.9	16.8
40°-50°	297.3	17.8
50°-60°	281.3	16.9
60°-70°	227.9	13.7
70°-80°	124.9	7.5
80°-90°	20.9	1.3
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°	433.9	26.0
0°-40°	713.8	42.8
0°-60°	1292.3	77.6
0°-90°	1666.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1666.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	557	556	552	556	555	53
15°	536	535	533	538	537	151
25°	495	495	496	503	504	228
35°	437	439	446	456	459	273
45°	363	369	384	402	407	281
55°	277	290	317	340	347	248
65°	181	202	239	260	265	179
75°	83	114	136	120	117	89
85°	15	20	11	6	4	19
90°	0	0	0	0	0	



TEST NUMBER: P475458

CATALOG NUMBER: 14CZ2-20-HRP-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	557.6	557.6	557.6	557.6	557.6
2.5°	559.7	557.6	554.0	557.6	557.1
5°	557.1	556.1	552.5	556.1	555.0
7.5°	554.0	553.0	549.4	553.5	552.5
10°	549.4	548.4	545.8	549.4	548.4
12.5°	543.2	542.7	540.1	544.2	543.2
15°	536.0	535.0	533.4	537.6	537.0
17.5°	527.8	526.8	525.7	530.9	530.4
20°	518.0	517.5	517.0	522.6	522.1
22.5°	506.7	506.7	507.2	513.4	513.4
25°	495.4	495.4	496.4	503.1	503.6
27.5°	482.0	483.0	485.1	492.3	493.8
30°	468.1	469.1	472.2	480.5	482.5
32.5°	453.2	454.7	458.9	468.6	470.7
35°	437.2	438.8	445.5	456.3	458.9
37.5°	420.3	422.8	430.6	442.9	447.5
40°	402.3	406.4	415.6	429.0	434.2
42.5°	384.3	387.9	400.2	415.6	420.8
45°	363.2	368.8	384.3	401.8	407.4
47.5°	344.7	349.8	367.8	387.3	394.0
50°	321.5	329.2	351.3	372.9	379.1
52.5°	299.4	309.7	334.9	357.0	364.2
55°	277.3	289.6	317.4	340.5	347.2
57.5°	254.1	267.5	298.9	322.5	329.7
60°	232.0	246.4	280.4	304.5	311.7
62.5°	205.8	223.8	260.3	283.4	289.6
65°	181.1	201.6	239.2	260.3	264.9
67.5°	155.9	180.0	217.6	236.1	237.7
70°	130.7	157.9	194.4	205.8	198.6
72.5°	106.0	136.3	169.8	160.5	152.3
75°	82.8	114.2	136.3	120.4	116.8
77.5°	61.2	93.6	95.2	87.4	84.9
80°	42.2	72.5	64.3	55.6	51.4
82.5°	27.3	44.8	35.5	26.2	23.7
85°	14.9	19.5	11.3	5.7	3.6
87.5°	5.7	3.6	1.5	1.5	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)