

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: P474915

Luminaire Tested: **22CZ2-39HE-S-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474915
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-S-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4077.1 lumens
Efficiency: N/A
Efficacy: 143.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

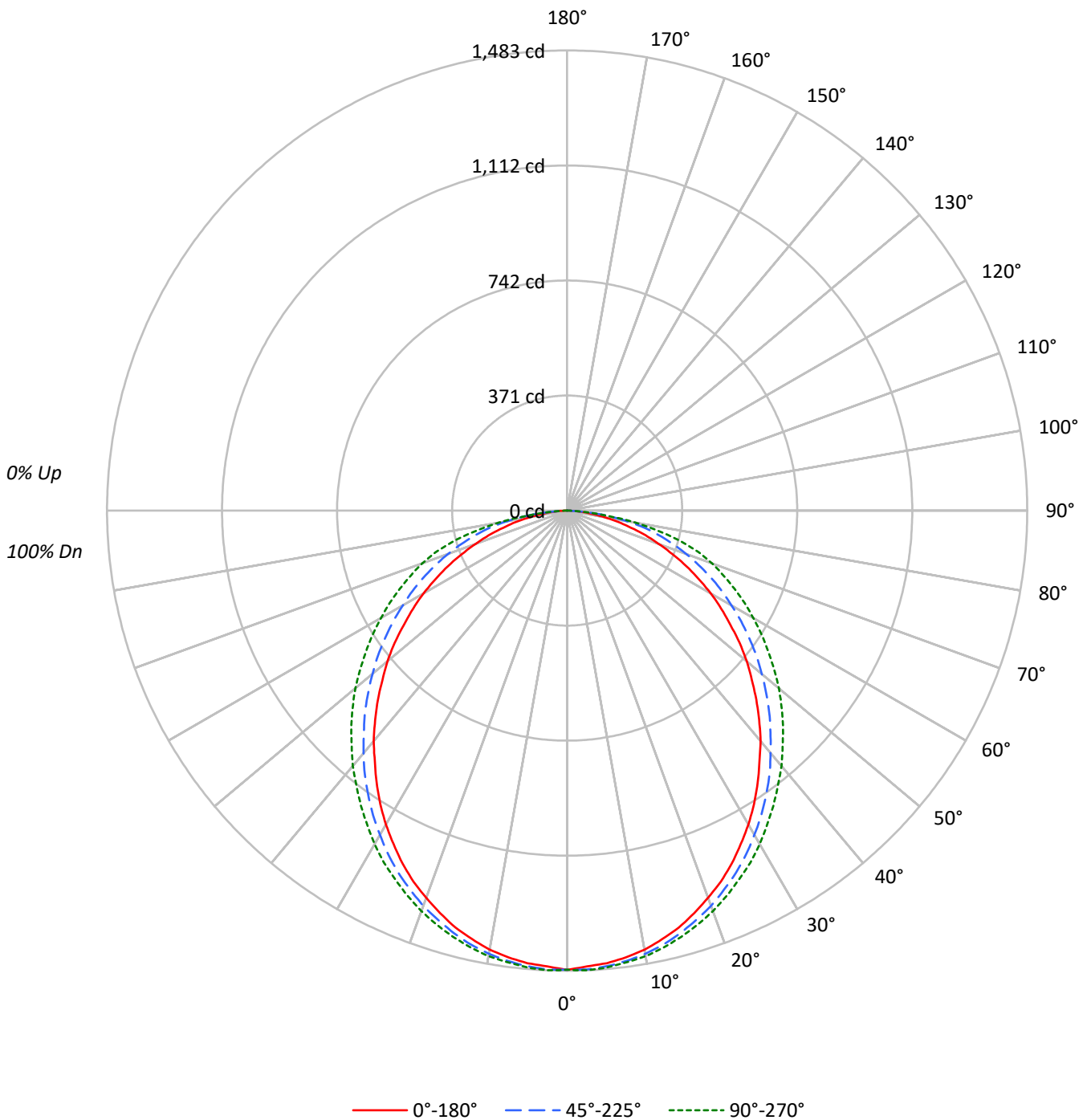
Input Watts (W): 28.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	88	86	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3983	3983	3983
5°	3955	3982	3992
10°	3925	3963	3985
15°	3876	3928	3961
20°	3803	3882	3933
25°	3727	3823	3893
30°	3630	3750	3857
35°	3517	3672	3808
40°	3407	3584	3775
45°	3282	3507	3744
50°	3164	3428	3730
55°	3013	3361	3712
60°	2878	3292	3728
65°	2702	3254	3782
70°	2469	3214	3905
75°	2216	3191	3908
80°	1866	3013	3471
85°	1402	2041	1890



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.8	3.4
10°-20°	397.0	9.7
20°-30°	591.9	14.5
30°-40°	698.4	17.1
40°-50°	711.6	17.5
50°-60°	641.7	15.7
60°-70°	504.0	12.4
70°-80°	315.1	7.7
80°-90°	77.7	1.9
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°	1128.7	27.7
0°-40°	1827.1	44.8
0°-60°	3180.4	78.0
0°-90°	4077.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4077.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1480	1480	1480	1480	1480	
5°	1464	1467	1474	1477	1478	139
15°	1391	1396	1410	1420	1422	392
25°	1255	1262	1288	1306	1311	577
35°	1070	1085	1118	1148	1159	669
45°	862	877	922	966	984	665
55°	642	663	716	772	791	576
65°	424	447	511	568	594	419
75°	213	243	307	359	376	228
85°	45	58	66	65	61	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1480.0	1480.0	1480.0	1480.0	1480.0
2.5°	1470.1	1473.1	1480.0	1483.0	1483.0
5°	1464.2	1467.2	1474.1	1477.1	1478.0
7.5°	1452.4	1456.3	1464.2	1468.2	1468.2
10°	1436.6	1441.5	1450.4	1456.3	1458.3
12.5°	1414.9	1420.8	1432.7	1439.6	1441.5
15°	1391.2	1396.1	1410.0	1419.8	1421.8
17.5°	1360.6	1368.5	1383.3	1396.1	1399.1
20°	1328.1	1336.9	1355.7	1370.5	1373.5
22.5°	1294.5	1301.4	1322.1	1339.9	1343.9
25°	1255.1	1262.0	1287.6	1306.4	1311.3
27.5°	1211.6	1223.5	1249.1	1270.8	1278.7
30°	1168.2	1180.1	1206.7	1232.4	1241.2
32.5°	1120.9	1133.7	1164.3	1190.9	1199.8
35°	1070.5	1085.3	1117.9	1148.5	1159.3
37.5°	1018.2	1035.0	1071.5	1104.1	1115.9
40°	969.9	981.7	1020.2	1057.7	1074.5
42.5°	915.6	931.4	969.9	1012.3	1028.1
45°	862.4	877.2	921.6	966.0	983.7
47.5°	807.1	825.8	870.2	919.6	937.3
50°	755.8	771.6	818.9	871.2	891.0
52.5°	700.5	717.3	768.6	822.9	840.6
55°	642.3	663.0	716.3	771.6	791.3
57.5°	589.0	608.8	665.0	722.2	743.0
60°	534.8	554.5	611.7	670.0	692.6
62.5°	477.6	500.2	562.4	618.6	644.3
65°	424.3	447.0	511.1	568.3	594.0
67.5°	368.0	394.7	458.8	519.0	544.6
70°	313.8	345.3	408.5	467.7	496.3
72.5°	265.4	291.1	357.2	419.3	443.0
75°	213.1	242.7	306.9	359.1	375.9
77.5°	168.7	194.4	255.5	290.1	300.9
80°	120.4	149.0	194.4	215.1	224.0
82.5°	79.9	103.6	132.2	136.2	134.2
85°	45.4	58.2	66.1	65.1	61.2
87.5°	17.8	19.7	14.8	8.9	6.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)