

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: P474799

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474799
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3996.8 lumens
Efficiency: N/A
Efficacy: 140.2 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

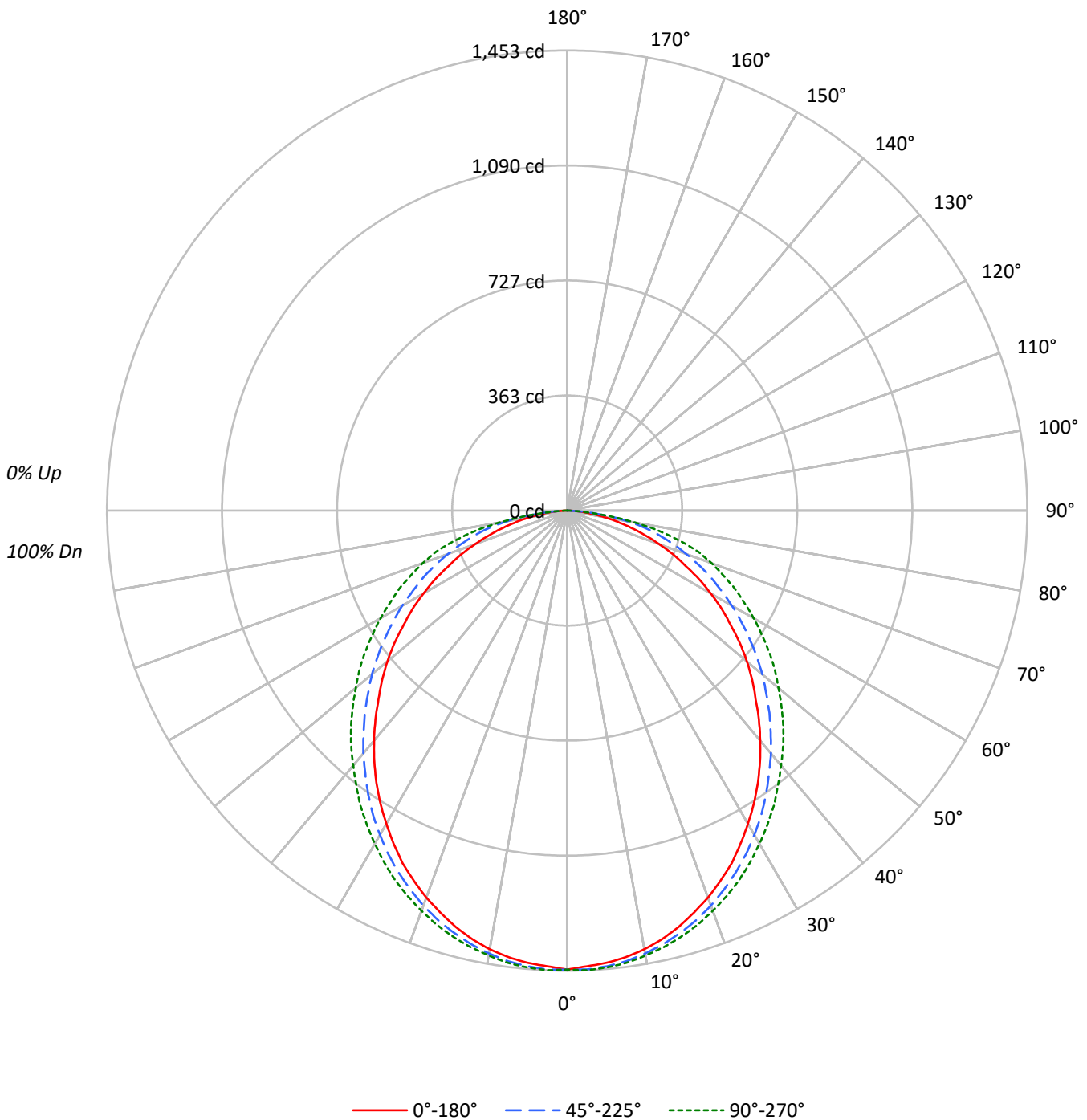
Input Watts (W): 28.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	87	85	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	73	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	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3901	3901	3901
5°	3872	3902	3911
10°	3843	3880	3898
15°	3791	3845	3880
20°	3723	3800	3851
25°	3649	3742	3820
30°	3549	3674	3774
35°	3449	3596	3738
40°	3332	3516	3691
45°	3205	3436	3674
50°	3101	3366	3646
55°	2956	3293	3654
60°	2823	3237	3664
65°	2625	3195	3722
70°	2426	3150	3814
75°	2169	3135	3838
80°	1819	2971	3350
85°	1408	2035	1905



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.9	3.4
10°-20°	388.7	9.7
20°-30°	579.6	14.5
30°-40°	684.3	17.1
40°-50°	697.4	17.4
50°-60°	628.9	15.7
60°-70°	494.3	12.4
70°-80°	309.5	7.7
80°-90°	77.2	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°	1105.3	27.7
0°-40°	1789.6	44.8
0°-60°	3115.9	78.0
0°-90°	3996.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3996.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1450	1450	1450	1450	1450	
5°	1433	1437	1444	1448	1448	136
15°	1361	1367	1380	1390	1393	383
25°	1229	1238	1260	1280	1286	565
35°	1050	1063	1095	1125	1138	656
45°	842	861	903	947	966	651
55°	630	650	702	756	779	566
65°	412	438	502	558	584	411
75°	209	240	302	356	369	222
85°	46	58	66	66	62	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1449.5	1449.5	1449.5	1449.5	1449.5
2.5°	1440.2	1443.5	1450.3	1452.8	1452.8
5°	1433.4	1436.8	1444.4	1447.8	1447.8
7.5°	1422.4	1425.8	1435.1	1439.3	1440.2
10°	1406.4	1410.6	1419.9	1426.7	1426.7
12.5°	1386.1	1390.3	1402.2	1410.6	1411.5
15°	1360.8	1366.7	1380.2	1390.3	1392.9
17.5°	1331.2	1340.5	1355.7	1368.4	1370.9
20°	1300.0	1309.2	1327.0	1341.3	1344.7
22.5°	1265.3	1273.8	1294.9	1312.6	1316.8
25°	1229.0	1238.3	1260.3	1279.7	1286.4
27.5°	1185.9	1196.9	1223.1	1245.1	1251.8
30°	1142.0	1155.5	1182.5	1207.0	1214.6
32.5°	1097.2	1109.9	1140.3	1166.5	1176.6
35°	1049.9	1063.4	1094.7	1125.1	1137.8
37.5°	1000.1	1013.6	1047.4	1082.0	1093.9
40°	948.6	964.6	1000.9	1038.1	1050.8
42.5°	896.2	913.1	951.1	992.5	1009.4
45°	842.1	860.7	903.0	946.9	965.5
47.5°	793.1	808.4	852.3	900.4	918.2
50°	740.8	755.1	804.1	852.3	870.9
52.5°	687.6	701.1	753.4	804.1	826.9
55°	630.1	649.6	701.9	756.0	778.8
57.5°	579.4	597.2	651.2	706.1	728.1
60°	524.5	543.1	601.4	657.2	680.8
62.5°	469.6	489.9	549.0	609.0	631.0
65°	412.2	437.5	501.7	557.5	584.5
67.5°	363.2	387.7	451.1	509.3	533.0
70°	308.3	337.0	400.4	459.5	484.8
72.5°	256.8	285.5	350.5	409.7	435.0
75°	208.6	239.9	301.5	355.6	369.1
77.5°	162.2	191.7	253.4	284.7	299.0
80°	117.4	146.1	191.7	212.9	216.2
82.5°	79.4	103.9	130.1	136.0	132.6
85°	45.6	58.3	65.9	65.9	61.7
87.5°	18.6	18.6	16.0	10.1	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)