

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: P475184

Luminaire Tested: **22CZ2-55VHE-HRP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475184
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-55VHE-HRP-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4593.5 lumens
Efficiency: N/A
Efficacy: 119.3 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

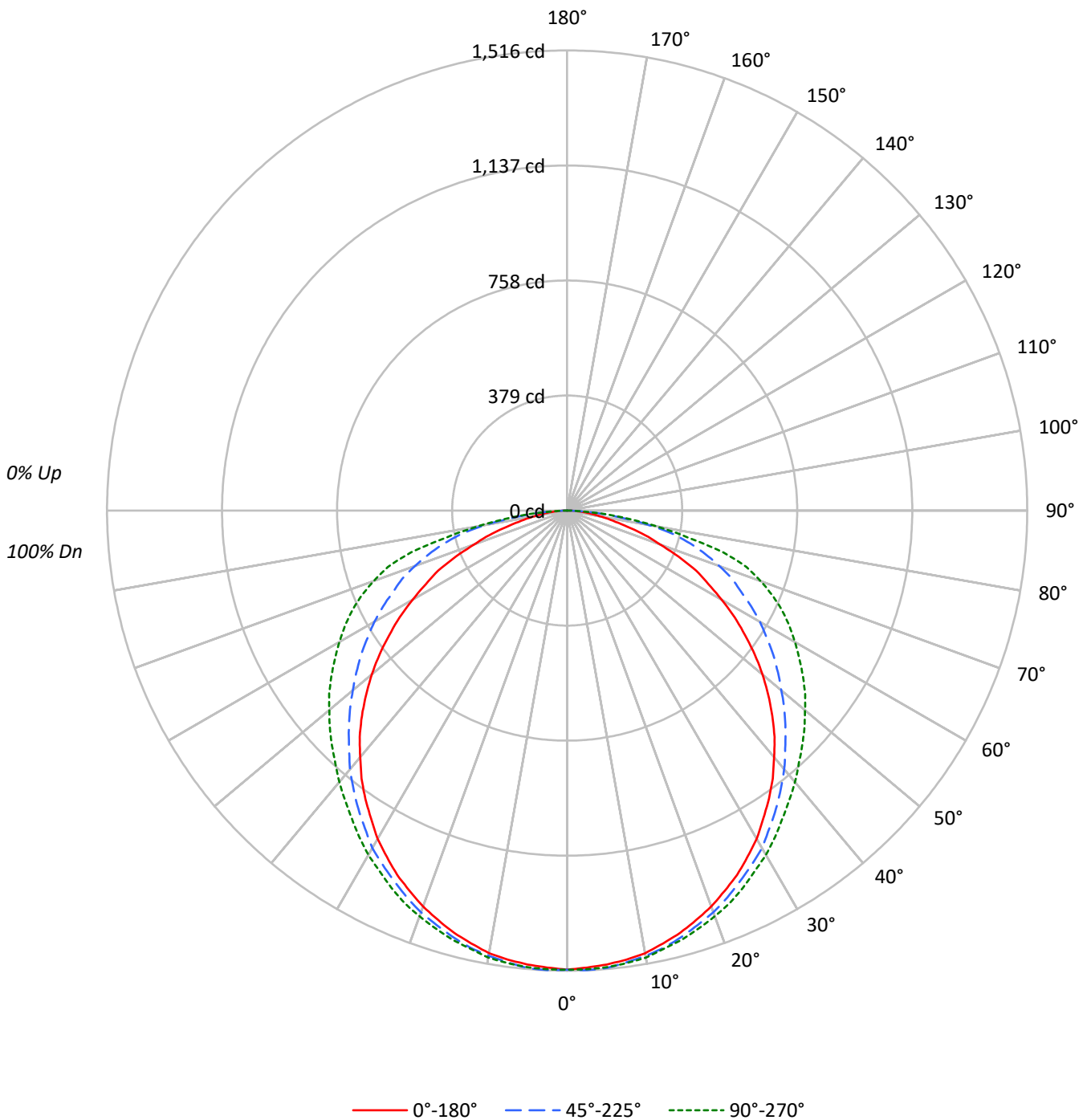
Input Watts (W): 38.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	4070	4070	4070
5°	4055	4086	4078
10°	4046	4070	4086
15°	4012	4052	4077
20°	3975	4033	4074
25°	3932	4001	4070
30°	3880	3989	4070
35°	3807	3941	4065
40°	3725	3909	4102
45°	3639	3871	4168
50°	3518	3858	4282
55°	3358	3888	4446
60°	3166	3946	4663
65°	2989	4022	4982
70°	2554	4195	5334
75°	2140	4370	5544
80°	1753	4220	4626
85°	1516	3131	3399



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.4	3.1
10°-20°	410.1	8.9
20°-30°	621.5	13.5
30°-40°	750.4	16.3
40°-50°	788.5	17.2
50°-60°	741.9	16.2
60°-70°	618.6	13.5
70°-80°	409.9	8.9
80°-90°	109.2	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°	1174.9	25.6
0°-40°	1925.3	41.9
0°-60°	3455.7	75.2
0°-90°	4593.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4593.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1512	1512	1512	1512	1512	
5°	1501	1504	1512	1512	1510	143
15°	1440	1446	1455	1460	1463	406
25°	1324	1333	1347	1365	1371	610
35°	1159	1171	1200	1226	1237	725
45°	956	971	1017	1069	1095	736
55°	716	748	829	913	948	640
65°	469	510	632	736	782	457
75°	206	287	420	507	533	223
85°	49	75	101	110	110	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1512.5	1512.5	1512.5	1512.5	1512.5
2.5°	1506.9	1509.7	1515.6	1515.6	1512.5
5°	1501.0	1503.8	1512.5	1512.5	1509.7
7.5°	1492.3	1495.3	1501.0	1506.9	1503.8
10°	1480.7	1483.6	1489.5	1495.3	1495.3
12.5°	1460.5	1463.3	1474.9	1477.9	1477.9
15°	1440.0	1445.9	1454.6	1460.5	1463.3
17.5°	1414.2	1419.8	1431.3	1443.1	1443.1
20°	1388.1	1393.7	1408.3	1419.8	1422.6
22.5°	1356.1	1364.8	1379.4	1393.7	1399.6
25°	1324.4	1333.1	1347.4	1364.8	1370.7
27.5°	1286.5	1295.2	1315.7	1335.9	1338.7
30°	1248.8	1257.5	1283.7	1301.1	1309.8
32.5°	1202.5	1214.0	1240.1	1266.2	1274.9
35°	1159.0	1170.8	1199.7	1225.8	1237.3
37.5°	1112.7	1124.2	1156.2	1188.2	1202.5
40°	1060.4	1075.0	1112.7	1147.5	1167.7
42.5°	1011.3	1025.9	1063.5	1109.9	1130.1
45°	956.3	970.6	1017.2	1069.1	1095.3
47.5°	898.2	915.6	970.6	1034.6	1060.4
50°	840.3	860.5	921.5	993.9	1022.8
52.5°	779.4	805.5	875.1	953.5	988.0
55°	715.7	747.7	828.8	912.8	947.6
57.5°	654.7	683.9	779.4	869.2	906.9
60°	588.2	625.8	733.1	825.7	866.4
62.5°	524.5	565.2	683.9	782.5	825.7
65°	469.4	509.9	631.7	735.9	782.5
67.5°	397.0	452.0	588.2	686.7	733.1
70°	324.6	399.8	533.2	634.5	678.0
72.5°	269.5	342.0	478.1	579.5	620.2
75°	205.8	286.9	420.3	507.1	533.2
77.5°	153.6	237.5	359.4	402.9	405.7
80°	113.1	182.5	272.3	286.9	298.5
82.5°	78.3	127.5	176.9	194.0	199.9
85°	49.1	75.2	101.4	110.1	110.1
87.5°	26.1	28.9	34.8	34.8	34.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)