

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: P474436

Luminaire Tested: **24CZ2-55VHE-HRP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474436
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55VHE-HRP-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY 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: 4458.9 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

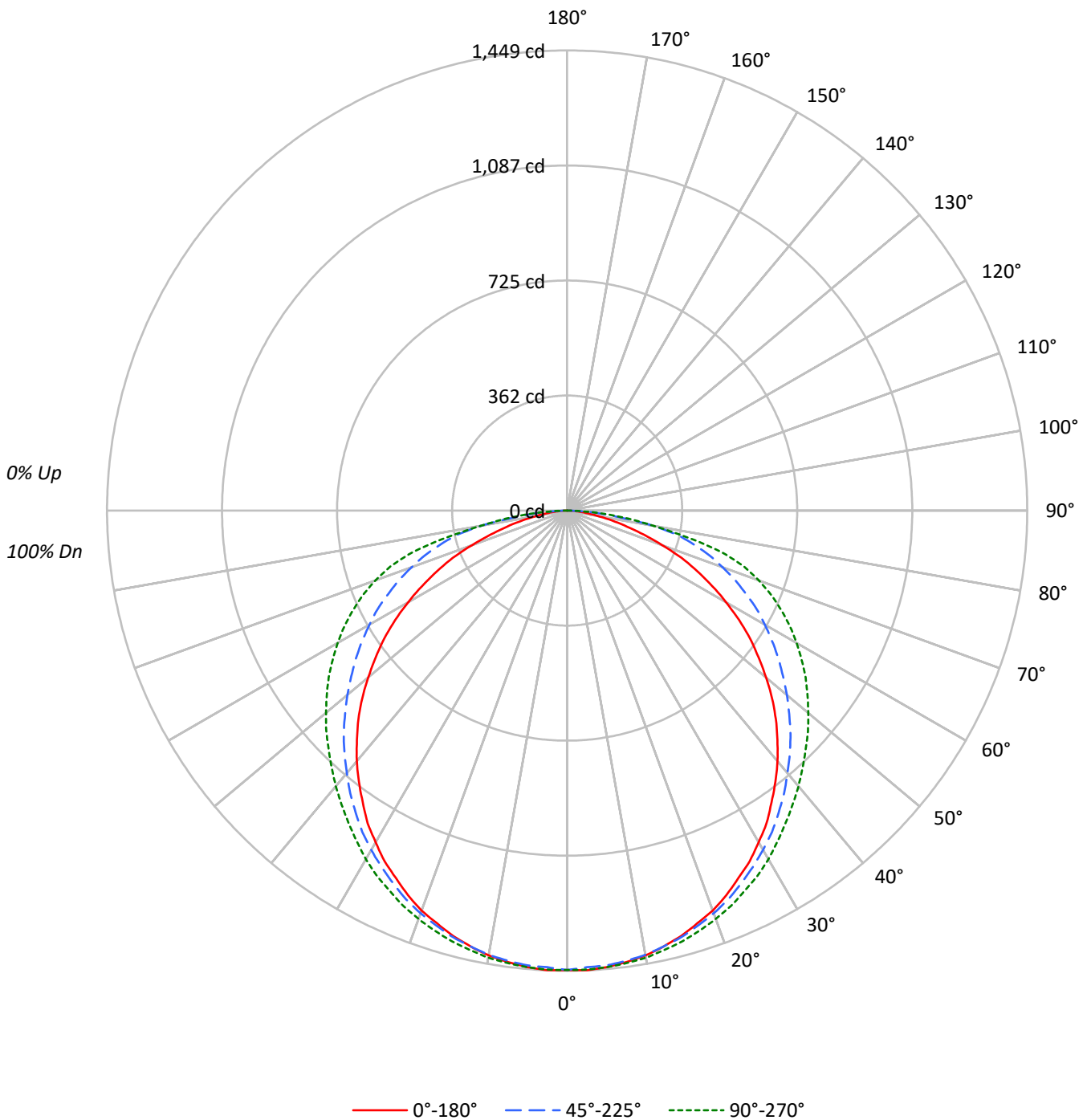
Input Watts (W): 37.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	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	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1947	1947	1947
5°	1949	1941	1949
10°	1943	1941	1953
15°	1932	1937	1955
20°	1919	1932	1959
25°	1895	1923	1962
30°	1874	1917	1969
35°	1843	1907	1972
40°	1810	1895	1990
45°	1769	1893	2021
50°	1712	1891	2075
55°	1651	1905	2150
60°	1557	1934	2245
65°	1438	1979	2372
70°	1256	2048	2526
75°	1019	2154	2611
80°	752	2112	2112
85°	577	1556	1757



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.0	3.1
10°-20°	393.5	8.8
20°-30°	599.1	13.4
30°-40°	727.5	16.3
40°-50°	768.6	17.2
50°-60°	725.2	16.3
60°-70°	603.0	13.5
70°-80°	396.7	8.9
80°-90°	108.2	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°	1129.7	25.3
0°-40°	1857.2	41.7
0°-60°	3351.0	75.2
0°-90°	4458.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4458.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1447	1447	1447	1447	1447	
5°	1443	1443	1437	1443	1443	137
15°	1387	1389	1391	1404	1404	391
25°	1277	1284	1296	1318	1322	589
35°	1122	1135	1161	1191	1200	702
45°	930	948	995	1043	1062	716
55°	704	734	812	889	917	627
65°	452	504	622	713	745	447
75°	196	286	414	491	502	211
85°	37	82	101	112	114	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1446.7	1446.7	1446.7	1446.7	1446.7
2.5°	1448.6	1446.7	1439.2	1446.7	1446.7
5°	1443.0	1443.0	1437.3	1443.0	1443.0
7.5°	1433.6	1433.6	1429.8	1437.3	1437.3
10°	1422.3	1422.3	1420.6	1429.8	1429.8
12.5°	1405.7	1407.4	1405.7	1416.8	1416.8
15°	1386.9	1388.8	1390.7	1403.8	1403.8
17.5°	1362.8	1366.4	1370.2	1385.0	1386.9
20°	1340.3	1342.1	1349.5	1366.4	1368.3
22.5°	1310.5	1316.0	1325.4	1342.1	1347.8
25°	1276.7	1284.2	1295.5	1317.9	1321.6
27.5°	1245.1	1250.7	1265.6	1290.0	1297.4
30°	1205.9	1215.2	1233.8	1258.2	1267.5
32.5°	1168.5	1177.9	1200.3	1226.4	1233.8
35°	1121.9	1135.0	1161.0	1190.9	1200.3
37.5°	1077.1	1090.1	1121.9	1155.5	1166.8
40°	1030.4	1045.3	1079.0	1118.1	1133.0
42.5°	980.0	1000.5	1037.8	1080.7	1097.6
45°	929.6	948.4	994.9	1043.4	1062.2
47.5°	875.6	898.0	948.4	1006.2	1028.6
50°	817.7	845.7	903.5	966.9	991.3
52.5°	759.8	791.4	856.8	927.7	953.9
55°	703.7	733.6	811.9	888.6	916.6
57.5°	642.2	679.6	765.4	847.4	875.6
60°	578.6	619.8	718.6	804.5	834.4
62.5°	515.2	561.9	673.8	759.8	791.4
65°	451.8	504.1	621.7	713.1	744.9
67.5°	390.1	447.9	573.0	664.6	696.2
70°	319.2	392.0	520.7	610.4	642.2
72.5°	253.9	338.0	470.3	554.5	582.4
75°	196.0	285.7	414.4	490.8	502.2
77.5°	143.7	233.4	356.5	382.6	384.5
80°	97.1	186.6	272.6	268.8	272.6
82.5°	63.4	140.1	171.7	192.4	194.1
85°	37.4	82.2	100.8	112.1	113.8
87.5°	18.6	28.0	35.4	37.4	41.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)