

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1031296

Luminaire Tested: S123DIW-B1000D1320UB27-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031296
REPORT IS A COMBINATION OF REPORTS P990592 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B1000D1320UB27-4F0-XX-W2A-F1
Description: Define 3 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

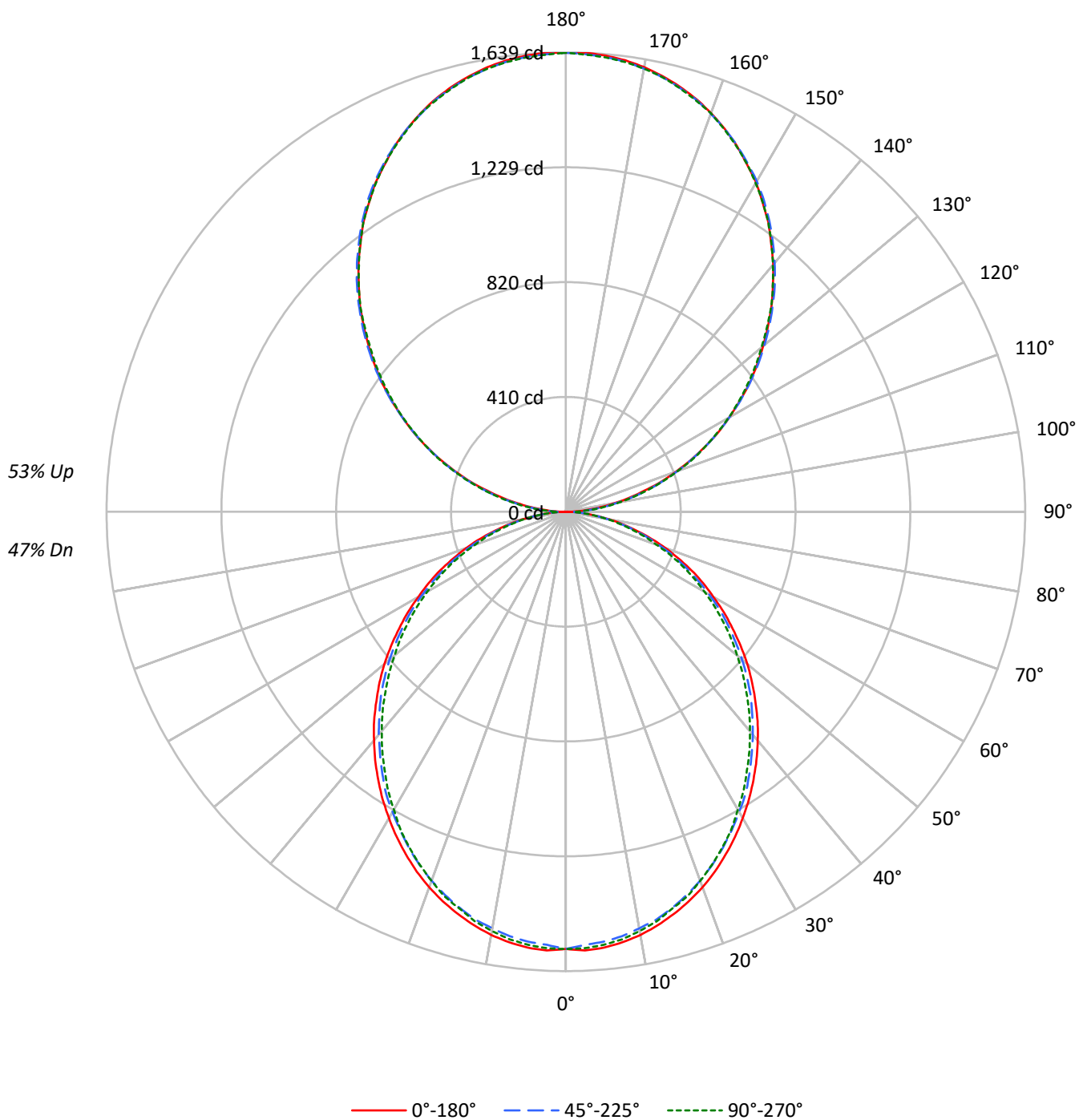
Lumens per Lamp: N/A
Luminaire Lumens: 8601.0 lumens
Efficiency: N/A
Efficacy: 96.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 88.9
Input Voltage (V):
Input Current (A_{in}): 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: 24 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	106	106	106	106	98	98	98	98	82	82	82	67	67	67	54	54	54
1	97	93	89	85	89	85	82	79	72	69	67	59	57	56	47	46	45
2	88	81	75	70	81	75	69	65	63	59	55	52	49	46	42	40	38
3	81	71	64	58	74	66	59	54	55	51	47	46	42	39	37	34	32
4	74	63	55	49	67	58	51	46	49	44	40	41	37	34	33	30	28
5	68	56	48	42	62	52	45	39	44	38	34	36	32	29	30	27	24
6	62	50	42	36	57	47	39	34	40	34	30	33	29	25	27	24	21
7	58	45	37	32	53	42	35	30	36	30	26	30	26	23	25	21	19
8	53	41	33	28	49	38	31	26	33	27	23	27	23	20	22	19	17
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	15
10	46	34	27	22	43	32	26	21	28	22	19	23	19	16	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16792	16792	16792
5°	16833	16212	16188
10°	16684	15663	15503
15°	16451	15092	14756
20°	16186	14460	14016
25°	15842	13791	13225
30°	15465	13098	12392
35°	15071	12392	11566
40°	14657	11650	10753
45°	14204	10928	9903
50°	13742	10122	9050
55°	13149	9282	8186
60°	12537	8356	7267
65°	11966	7354	6308
70°	11140	6244	5189
75°	9951	4944	4027
80°	8594	3475	2849
85°	6705	1869	1427

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14204 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.1	1.7
10°-20°	415.3	4.8
20°-30°	613.3	7.1
30°-40°	716.3	8.3
40°-50°	720.1	8.4
50°-60°	632.6	7.4
60°-70°	471.1	5.5
70°-80°	268.1	3.1
80°-90°	79.7	0.9
90°-100°	105.4	1.2
100°-110°	319.1	3.7
110°-120°	543.2	6.3
120°-130°	714.6	8.3
130°-140°	803.2	9.3
140°-150°	789.7	9.2
150°-160°	664.8	7.7
160°-170°	442.6	5.1
170°-180°	155.0	1.8
0°-30°	1175.6	13.7
0°-40°	1891.9	22.0
0°-60°	3244.6	37.7
0°-90°	4063.5	47.2
90°-120°	967.7	11.3
90°-150°	3275.2	38.1
90°-180°	4538.0	52.8
0°-180°	8601.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1560	1560	1560	1560	1560	
5°	1561	1555	1540	1553	1551	148
15°	1486	1481	1463	1474	1466	419
25°	1349	1341	1324	1325	1321	622
35°	1167	1159	1142	1134	1127	730
45°	956	951	934	918	911	738
55°	726	724	707	692	685	650
65°	495	488	475	464	460	488
75°	262	256	252	246	241	279
85°	70	67	67	64	64	75
90°	1	14	31	36	39	10
95°	76	85	95	100	100	84
105°	289	292	304	304	306	310
115°	547	551	548	549	548	541
125°	800	804	801	796	791	714
135°	1038	1046	1045	1039	1037	800
145°	1259	1262	1266	1265	1259	787
155°	1442	1442	1443	1448	1440	664
165°	1571	1567	1567	1575	1566	443
175°	1634	1629	1629	1636	1627	155
180°	1638	1638	1638	1638	1638	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1560.0	1560.0	1560.0	1560.0	1560.0
2.5°	1566.7	1561.3	1546.6	1560.0	1558.7
5°	1561.3	1554.6	1539.9	1553.3	1550.6
7.5°	1549.3	1542.6	1527.8	1539.9	1538.5
10°	1533.2	1526.5	1509.0	1521.1	1518.4
12.5°	1511.7	1506.3	1490.3	1498.3	1497.0
15°	1486.2	1480.9	1463.4	1474.2	1466.1
17.5°	1458.1	1451.4	1433.9	1442.0	1439.3
20°	1425.9	1417.8	1400.4	1405.7	1401.7
22.5°	1389.7	1381.6	1364.2	1368.2	1362.8
25°	1349.4	1341.4	1323.9	1325.3	1321.2
27.5°	1307.8	1299.8	1281.0	1282.3	1278.3
30°	1262.2	1255.5	1236.7	1236.7	1227.3
32.5°	1216.6	1207.2	1193.8	1184.4	1180.4
35°	1167.0	1158.9	1141.5	1133.5	1126.7
37.5°	1117.4	1106.6	1089.2	1079.8	1075.8
40°	1065.0	1057.0	1038.2	1027.5	1022.1
42.5°	1012.7	1003.3	984.6	973.8	968.5
45°	956.4	951.0	933.6	917.5	910.8
47.5°	901.4	893.3	877.3	861.2	855.8
50°	845.1	838.4	820.9	806.2	798.1
52.5°	786.0	782.0	763.2	751.2	743.1
55°	725.7	724.3	706.9	692.1	685.4
57.5°	669.3	664.0	650.6	637.1	629.1
60°	607.6	606.3	590.2	578.1	571.4
62.5°	552.6	548.6	532.5	520.4	516.4
65°	495.0	488.3	474.8	464.1	460.1
67.5°	433.3	427.9	417.2	407.8	402.4
70°	378.3	370.2	362.2	352.8	346.1
72.5°	320.6	315.2	305.8	297.8	295.1
75°	261.6	256.2	252.2	245.5	241.4
77.5°	209.3	206.6	201.2	195.8	195.8
80°	158.3	154.3	151.6	150.2	150.2
82.5°	108.7	108.7	108.7	106.0	104.6
85°	69.8	67.1	67.1	64.4	64.4
87.5°	34.9	30.9	29.5	28.2	28.2
90°	1.3	14.2	30.9	36.0	38.6
92.5°	38.6	46.3	54.0	57.9	55.3
95°	75.9	84.9	95.2	100.3	100.3
97.5°	124.8	131.2	138.9	145.4	144.1
100°	175.0	182.7	189.1	193.0	195.5
102.5°	232.8	236.7	245.7	249.6	248.3
105°	289.4	292.0	303.6	303.6	306.2
107.5°	356.3	357.6	362.8	366.6	365.3
110°	418.1	420.7	423.2	428.4	425.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	482.4	483.7	483.7	490.1	490.1
115°	546.7	550.6	548.0	549.3	548.0
117.5°	612.3	613.6	611.1	611.1	607.2
120°	672.8	680.5	674.1	672.8	670.2
122.5°	735.8	741.0	738.4	734.5	730.7
125°	800.2	804.0	801.4	796.3	791.2
127.5°	859.3	867.0	864.5	856.8	851.6
130°	918.5	928.8	924.9	919.8	910.8
132.5°	977.7	988.0	985.4	979.0	972.5
135°	1038.1	1045.9	1044.6	1039.4	1036.9
137.5°	1093.5	1099.9	1103.8	1097.3	1093.5
140°	1151.3	1157.8	1159.1	1157.8	1148.8
142.5°	1204.1	1210.5	1213.1	1211.8	1205.4
145°	1259.4	1262.0	1265.8	1264.6	1259.4
147.5°	1307.0	1312.2	1316.0	1316.0	1308.3
150°	1357.2	1359.7	1362.3	1362.3	1354.6
152.5°	1398.3	1402.2	1403.5	1406.1	1399.6
155°	1442.1	1442.1	1443.4	1448.5	1439.5
157.5°	1479.4	1478.1	1479.4	1484.5	1476.8
160°	1514.1	1511.5	1511.5	1518.0	1512.8
162.5°	1545.0	1541.1	1542.4	1548.9	1539.8
165°	1570.7	1566.9	1566.9	1574.6	1565.6
167.5°	1592.6	1587.4	1588.7	1596.5	1588.7
170°	1610.6	1605.5	1605.5	1614.5	1605.5
172.5°	1624.8	1619.6	1619.6	1627.3	1618.3
175°	1633.8	1628.6	1628.6	1636.3	1627.3
177.5°	1638.9	1633.8	1633.8	1641.5	1632.5
180°	1637.6	1637.6	1637.6	1637.6	1637.6

(END OF REPORT)