

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: P1031584

Luminaire Tested: S123DIW-B340D1320UB27-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031584
REPORT IS A COMBINATION OF REPORTS P991252 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B340D1320UB27-4F0-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

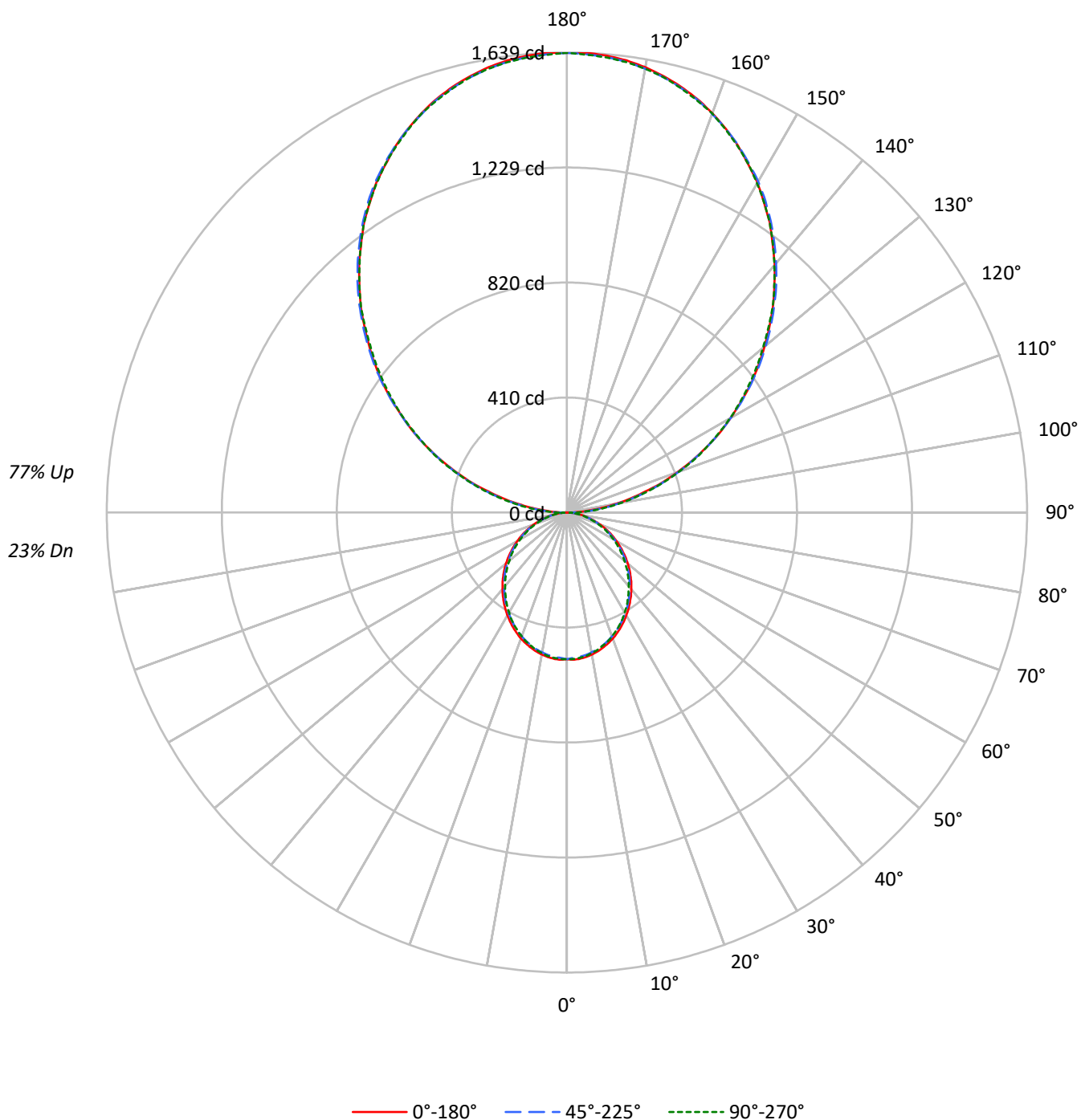
Lumens per Lamp: N/A
Luminaire Lumens: 5902.0 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 55.1
Input Voltage (V):
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: 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	50	30	10
RCR																				
0	101	101	101	101	89	89	89	89	68	68	68	49	49	49	31	31	31			23
1	92	88	84	80	81	78	75	72	60	58	56	43	42	41	28	27	26			19
2	83	76	71	66	74	68	63	59	52	49	46	38	36	34	24	23	22			16
3	76	67	60	54	67	60	54	49	46	42	39	33	31	29	22	20	19			14
4	69	59	52	46	61	53	46	41	41	36	33	30	27	24	19	18	16			12
5	64	53	45	39	56	47	40	35	36	32	28	26	23	21	17	15	14			10
6	58	47	39	34	52	42	35	31	33	28	24	24	21	18	16	14	12			9
7	54	42	35	29	48	38	31	27	29	25	21	22	18	16	14	12	11			8
8	50	38	31	26	44	34	28	23	27	22	19	20	16	14	13	11	10			7
9	46	35	27	23	41	31	25	21	24	20	17	18	15	13	12	10	9			6
10	43	32	25	20	38	28	22	18	22	18	15	17	13	11	11	9	8			6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5628	5628	5628
5°	5643	5435	5427
10°	5593	5251	5197
15°	5515	5060	4947
20°	5426	4847	4699
25°	5311	4623	4433
30°	5184	4391	4154
35°	5052	4155	3877
40°	4913	3905	3604
45°	4761	3664	3320
50°	4607	3393	3033
55°	4408	3112	2745
60°	4203	2800	2437
65°	4010	2466	2114
70°	3734	2093	1739
75°	3336	1656	1350
80°	2883	1164	956
85°	2248	627	479

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4761 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.3	0.8
10°-20°	139.2	2.4
20°-30°	205.6	3.5
30°-40°	240.1	4.1
40°-50°	241.4	4.1
50°-60°	212.1	3.6
60°-70°	157.9	2.7
70°-80°	89.9	1.5
80°-90°	29.0	0.5
90°-100°	105.4	1.8
100°-110°	319.1	5.4
110°-120°	543.2	9.2
120°-130°	714.6	12.1
130°-140°	803.2	13.6
140°-150°	789.7	13.4
150°-160°	664.8	11.3
160°-170°	442.6	7.5
170°-180°	155.0	2.6
0°-30°	394.1	6.7
0°-40°	634.2	10.7
0°-60°	1087.7	18.4
0°-90°	1364.4	23.1
90°-120°	967.7	16.4
90°-150°	3275.2	55.5
90°-180°	4538.0	76.9
0°-180°	5902.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	523	523	523	523	523	
5°	523	521	516	521	520	50
15°	498	496	491	494	492	140
25°	452	450	444	444	443	208
35°	391	388	383	380	378	245
45°	321	319	313	308	305	248
55°	243	243	237	232	230	218
65°	166	164	159	156	154	164
75°	88	86	84	82	81	94
85°	23	22	22	22	22	25
90°	1	14	31	36	39	7
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°	522.9	522.9	522.9	522.9	522.9
2.5°	525.2	523.4	518.5	522.9	522.5
5°	523.4	521.1	516.2	520.7	519.8
7.5°	519.4	517.1	512.2	516.2	515.8
10°	514.0	511.7	505.9	509.9	509.0
12.5°	506.8	505.0	499.6	502.3	501.8
15°	498.2	496.4	490.6	494.2	491.5
17.5°	488.8	486.5	480.7	483.4	482.5
20°	478.0	475.3	469.4	471.2	469.9
22.5°	465.8	463.1	457.3	458.6	456.8
25°	452.4	449.7	443.8	444.3	442.9
27.5°	438.4	435.7	429.4	429.9	428.5
30°	423.1	420.9	414.6	414.6	411.4
32.5°	407.8	404.7	400.2	397.0	395.7
35°	391.2	388.5	382.7	380.0	377.7
37.5°	374.6	371.0	365.1	362.0	360.6
40°	357.0	354.3	348.0	344.4	342.6
42.5°	339.5	336.3	330.0	326.4	324.6
45°	320.6	318.8	313.0	307.6	305.3
47.5°	302.2	299.5	294.1	288.7	286.9
50°	283.3	281.0	275.2	270.2	267.5
52.5°	263.5	262.1	255.9	251.8	249.1
55°	243.3	242.8	237.0	232.0	229.8
57.5°	224.4	222.6	218.1	213.6	210.9
60°	203.7	203.2	197.8	193.8	191.6
62.5°	185.3	183.9	178.5	174.5	173.1
65°	165.9	163.7	159.2	155.6	154.2
67.5°	145.2	143.4	139.8	136.7	134.9
70°	126.8	124.1	121.4	118.3	116.0
72.5°	107.5	105.7	102.5	99.8	98.9
75°	87.7	85.9	84.5	82.3	80.9
77.5°	70.1	69.2	67.4	65.6	65.6
80°	53.1	51.7	50.8	50.4	50.4
82.5°	36.4	36.4	36.4	35.5	35.1
85°	23.4	22.5	22.5	21.6	21.6
87.5°	11.7	10.3	9.9	9.4	9.4
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)