

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: P1031583

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

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031583
REPORT IS A COMBINATION OF REPORTS P991251 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-F
Description: Define 3 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

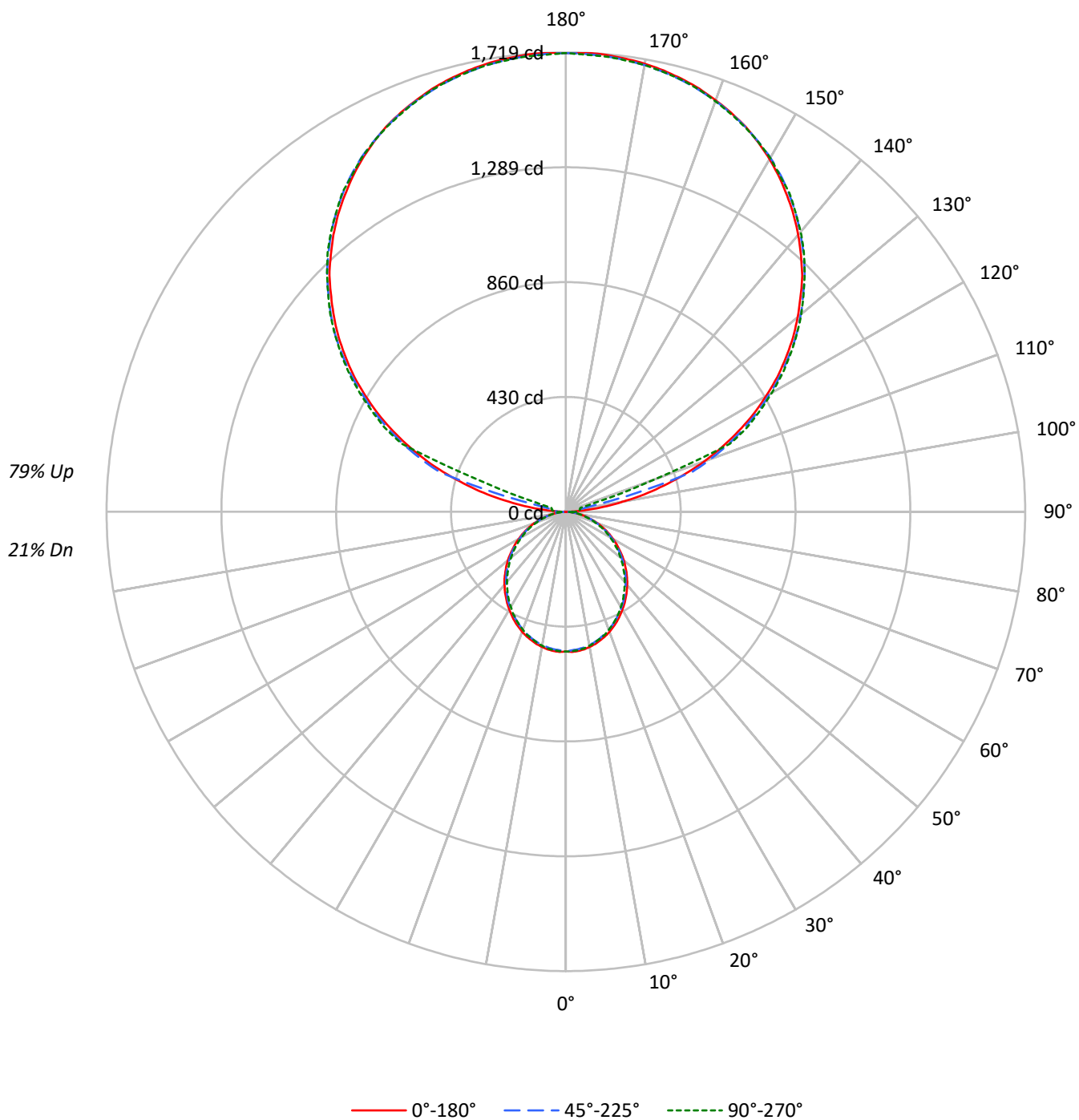
Lumens per Lamp: N/A
Luminaire Lumens: 6598.0 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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
RCR																	
0	100	100	100	100	89	89	89	89	67	67	67	47	47	47	29	29	29
1	91	87	83	80	81	77	74	71	59	57	55	41	40	39	26	25	25
2	83	76	70	65	73	67	62	58	51	48	45	36	34	33	23	22	21
3	76	67	60	54	67	59	53	49	45	41	38	32	30	28	20	19	17
4	69	59	51	46	61	52	46	41	40	36	32	28	26	23	18	16	15
5	63	52	44	39	56	46	40	35	36	31	27	25	22	20	16	14	13
6	58	47	39	33	51	42	35	30	32	27	24	23	20	18	14	13	11
7	54	42	34	29	47	37	31	26	29	24	21	21	18	15	13	11	10
8	50	38	30	25	44	34	27	23	26	22	18	19	16	14	12	10	9
9	46	34	27	22	41	31	25	20	24	19	16	17	14	12	11	9	8
10	43	31	24	20	38	28	22	18	22	17	14	16	13	11	10	9	7

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	0.7
10°-20°	139.2	2.1
20°-30°	205.6	3.1
30°-40°	240.1	3.6
40°-50°	241.4	3.7
50°-60°	212.1	3.2
60°-70°	157.9	2.4
70°-80°	89.9	1.4
80°-90°	29.0	0.4
90°-100°	60.6	0.9
100°-110°	292.7	4.4
110°-120°	717.2	10.9
120°-130°	910.5	13.8
130°-140°	972.7	14.7
140°-150°	909.6	13.8
150°-160°	733.7	11.1
160°-170°	473.5	7.2
170°-180°	163.2	2.5
0°-30°	394.1	6.0
0°-40°	634.2	9.6
0°-60°	1087.7	16.5
0°-90°	1364.4	20.7
90°-120°	1070.5	16.2
90°-150°	3863.3	58.6
90°-180°	5234.0	79.3
0°-180°	6598.0	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	38	6
95°	78	26	40	48	48	93
105°	380	394	279	54	56	403
115°	713	721	732	745	750	704
125°	1005	1015	1020	1023	1025	898
135°	1251	1259	1264	1268	1264	963
145°	1444	1453	1455	1458	1458	904
155°	1590	1588	1589	1596	1588	733
165°	1677	1673	1672	1682	1673	474
175°	1717	1710	1712	1720	1710	163
180°	1717	1717	1717	1717	1717	

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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	14.0	30.6	35.7	38.3
92.5°	29.3	21.7	33.2	42.1	43.4
95°	77.8	25.5	39.5	48.5	48.5
97.5°	141.6	105.9	40.8	51.0	52.3
100°	215.5	241.1	42.1	52.3	53.6
102.5°	299.7	316.3	94.4	52.3	54.8
105°	380.1	394.1	279.3	53.6	56.1
107.5°	465.5	477.0	496.1	299.7	132.6
110°	551.0	561.2	575.2	533.1	350.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	632.6	641.5	655.6	667.0	664.5
115°	713.0	720.6	732.1	744.8	749.9
117.5°	792.0	801.0	807.3	817.5	818.8
120°	864.7	876.2	880.0	890.2	890.2
122.5°	938.7	947.6	952.7	959.1	960.4
125°	1005.0	1015.2	1020.3	1022.9	1025.4
127.5°	1071.4	1081.6	1087.9	1091.8	1089.2
130°	1132.6	1142.8	1147.9	1153.0	1150.4
132.5°	1191.2	1201.5	1205.3	1210.4	1206.6
135°	1251.2	1258.8	1263.9	1267.8	1263.9
137.5°	1302.2	1312.4	1315.0	1321.3	1318.8
140°	1353.2	1360.9	1364.7	1369.8	1367.3
142.5°	1400.4	1408.1	1411.9	1415.7	1411.9
145°	1443.8	1452.7	1455.3	1457.8	1457.8
147.5°	1485.9	1492.2	1494.8	1497.3	1491.0
150°	1524.1	1528.0	1530.5	1533.1	1529.2
152.5°	1558.6	1559.8	1561.1	1566.2	1559.8
155°	1590.5	1587.9	1589.2	1595.6	1587.9
157.5°	1616.0	1616.0	1614.7	1622.3	1612.1
160°	1638.9	1637.6	1636.4	1644.0	1635.1
162.5°	1660.6	1656.8	1655.5	1664.4	1656.8
165°	1677.2	1673.4	1672.1	1682.3	1673.4
167.5°	1691.2	1686.1	1686.1	1696.3	1686.1
170°	1702.7	1697.6	1697.6	1707.8	1697.6
172.5°	1710.3	1704.0	1705.2	1715.4	1704.0
175°	1716.7	1710.3	1711.6	1720.5	1710.3
177.5°	1719.3	1712.9	1714.2	1724.4	1711.6
180°	1716.7	1716.7	1716.7	1716.7	1716.7

(END OF REPORT)