

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: P1031725

Luminaire Tested: S123DIW-B560D1320UB27-4F0-XX-W2A-D

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031725
REPORT IS A COMBINATION OF REPORTS P991578 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B560D1320UB27-4F0-XX-W2A-D
Description: Define 3 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

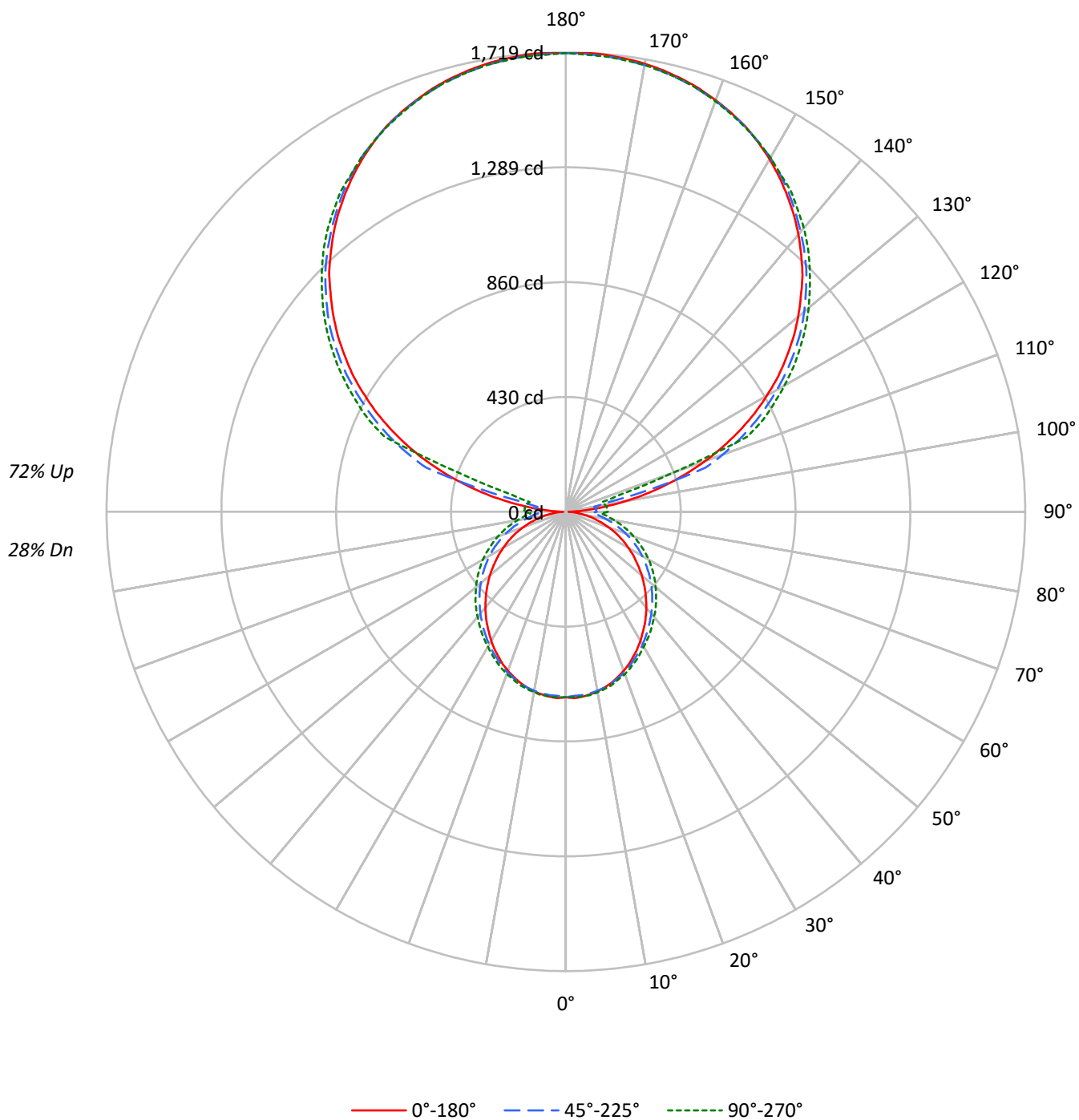
Lumens per Lamp: N/A
Luminaire Lumens: 7570.0 lumens
Efficiency: N/A
Efficacy: 114.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 66.1
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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36
1	92	88	84	80	82	79	75	72	61	59	57	46	44	43	31	30	29
2	84	76	70	65	75	68	63	59	53	50	47	40	37	35	27	25	24
3	76	67	60	54	68	60	54	49	47	43	39	35	32	29	24	22	20
4	70	59	51	45	62	53	46	41	41	37	33	31	28	25	21	19	17
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15
6	59	47	39	33	52	42	35	30	33	28	24	25	21	19	17	15	13
7	54	42	34	29	48	38	31	26	30	25	21	22	19	16	15	13	12
8	50	38	30	25	44	34	28	23	27	22	19	20	17	14	14	12	10
9	46	34	27	22	41	31	25	20	25	20	17	19	15	13	13	11	9
10	43	31	24	20	39	28	22	18	23	18	15	17	14	12	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7472	7472	7472
5°	7492	7253	7247
10°	7423	7056	7003
15°	7325	6840	6743
20°	7184	6598	6464
25°	7013	6325	6177
30°	6838	6078	5887
35°	6641	5820	5651
40°	6452	5584	5402
45°	6243	5355	5196
50°	6038	5128	4974
55°	5809	4895	4769
60°	5586	4657	4558
65°	5357	4403	4313
70°	5009	4120	4059
75°	4572	3795	3797
80°	4066	3466	3499
85°	3564	3200	3285

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6243 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.9	0.9
10°-20°	187.7	2.5
20°-30°	280.7	3.7
30°-40°	335.2	4.4
40°-50°	350.7	4.6
50°-60°	329.1	4.3
60°-70°	274.9	3.6
70°-80°	196.5	2.6
80°-90°	120.4	1.6
90°-100°	134.0	1.8
100°-110°	346.7	4.6
110°-120°	753.3	10.0
120°-130°	931.1	12.3
130°-140°	981.9	13.0
140°-150°	911.5	12.0
150°-160°	733.7	9.7
160°-170°	473.5	6.3
170°-180°	163.2	2.2
0°-30°	534.3	7.1
0°-40°	869.5	11.5
0°-60°	1549.3	20.5
0°-90°	2141.1	28.3
90°-120°	1234.1	16.3
90°-150°	4058.6	53.6
90°-180°	5429.0	71.7
0°-180°	7570.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	694	694	694	694	694	
5°	695	693	689	695	694	66
15°	662	664	663	671	670	186
25°	597	605	607	617	617	275
35°	514	526	536	548	550	322
45°	420	439	458	472	478	324
55°	321	346	373	393	399	287
65°	222	251	284	307	315	219
75°	120	156	194	218	228	128
85°	37	75	115	141	148	38
90°	11	61	116	147	157	11
95°	86	63	114	147	154	99
105°	386	418	336	132	141	409
115°	717	734	772	803	814	708
125°	1007	1018	1044	1063	1071	900
135°	1253	1260	1273	1290	1290	964
145°	1445	1453	1455	1464	1467	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°	694.2	694.2	694.2	694.2	694.2
2.5°	698.0	695.7	689.6	695.7	694.9
5°	694.9	693.4	688.9	694.9	694.2
7.5°	689.6	689.6	685.1	692.7	691.9
10°	682.1	683.6	679.8	687.4	685.9
12.5°	673.0	675.3	673.0	679.8	678.3
15°	661.7	663.9	663.2	670.7	670.0
17.5°	648.1	652.6	651.8	658.6	657.1
20°	632.9	637.5	639.0	645.8	646.5
22.5°	617.1	621.6	623.9	632.9	632.2
25°	597.4	605.0	607.2	617.1	617.1
27.5°	578.5	586.8	591.3	599.7	600.4
30°	558.1	567.9	573.9	583.0	583.0
32.5°	535.4	546.7	555.0	564.9	567.1
35°	514.2	526.3	536.1	547.5	550.5
37.5°	491.5	505.1	516.5	529.3	531.6
40°	468.8	482.4	497.6	510.4	513.5
42.5°	443.9	461.3	477.2	491.5	496.1
45°	420.4	438.6	457.5	471.9	477.9
47.5°	395.5	415.9	437.1	453.0	457.5
50°	371.3	392.5	415.9	433.3	438.6
52.5°	345.6	368.3	394.7	412.9	419.7
55°	320.6	345.6	372.8	393.2	399.3
57.5°	296.4	322.1	351.6	372.0	378.9
60°	270.7	297.9	328.9	350.1	358.4
62.5°	246.5	274.5	307.8	328.9	336.5
65°	221.6	251.1	284.3	307.0	314.6
67.5°	196.6	227.6	260.9	285.8	291.9
70°	170.1	202.7	239.0	263.2	270.7
72.5°	145.9	178.5	216.3	241.2	248.8
75°	120.2	155.8	193.6	218.5	227.6
77.5°	98.3	133.8	171.7	198.1	204.9
80°	74.9	111.9	151.2	176.9	184.5
82.5°	54.4	92.3	132.3	158.0	165.6
85°	37.1	74.9	114.9	140.7	148.2
87.5°	22.7	60.5	99.1	124.8	132.3
90°	11.1	60.9	116.0	146.9	157.0
92.5°	38.4	63.3	112.6	146.5	154.6
95°	86.1	63.3	114.4	146.8	154.4
97.5°	149.2	140.7	111.1	144.0	152.9
100°	222.3	272.1	107.9	140.0	148.9
102.5°	305.7	343.5	155.7	134.7	144.8
105°	386.1	418.3	336.0	131.5	140.8
107.5°	470.8	498.2	548.3	372.3	212.0
110°	555.5	579.3	623.6	601.2	424.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	637.1	656.6	699.5	729.8	734.1
115°	716.8	733.5	772.2	803.0	814.2
117.5°	795.8	810.8	842.8	871.2	878.5
120°	867.7	883.0	911.8	939.4	944.6
122.5°	941.7	952.1	980.7	1003.7	1010.3
125°	1007.3	1017.5	1044.5	1063.0	1070.8
127.5°	1073.7	1083.1	1108.3	1127.3	1130.0
130°	1134.9	1144.3	1164.5	1184.0	1185.9
132.5°	1192.7	1203.0	1218.2	1236.9	1238.4
135°	1252.7	1259.6	1273.0	1290.5	1290.4
137.5°	1303.7	1313.2	1321.0	1339.4	1340.7
140°	1354.0	1361.7	1367.7	1384.2	1385.4
142.5°	1401.2	1408.1	1411.9	1425.5	1425.5
145°	1444.6	1452.7	1455.3	1463.8	1466.9
147.5°	1485.9	1492.2	1494.8	1499.6	1496.3
150°	1524.1	1528.0	1530.5	1533.1	1530.7
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)