

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: P1031743

Luminaire Tested: S123DIW-B560D1320UB40-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031743
REPORT IS A COMBINATION OF REPORTS P991626 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B560D1320UB40-4F0-XX-W2A-D
Description: Define 3 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

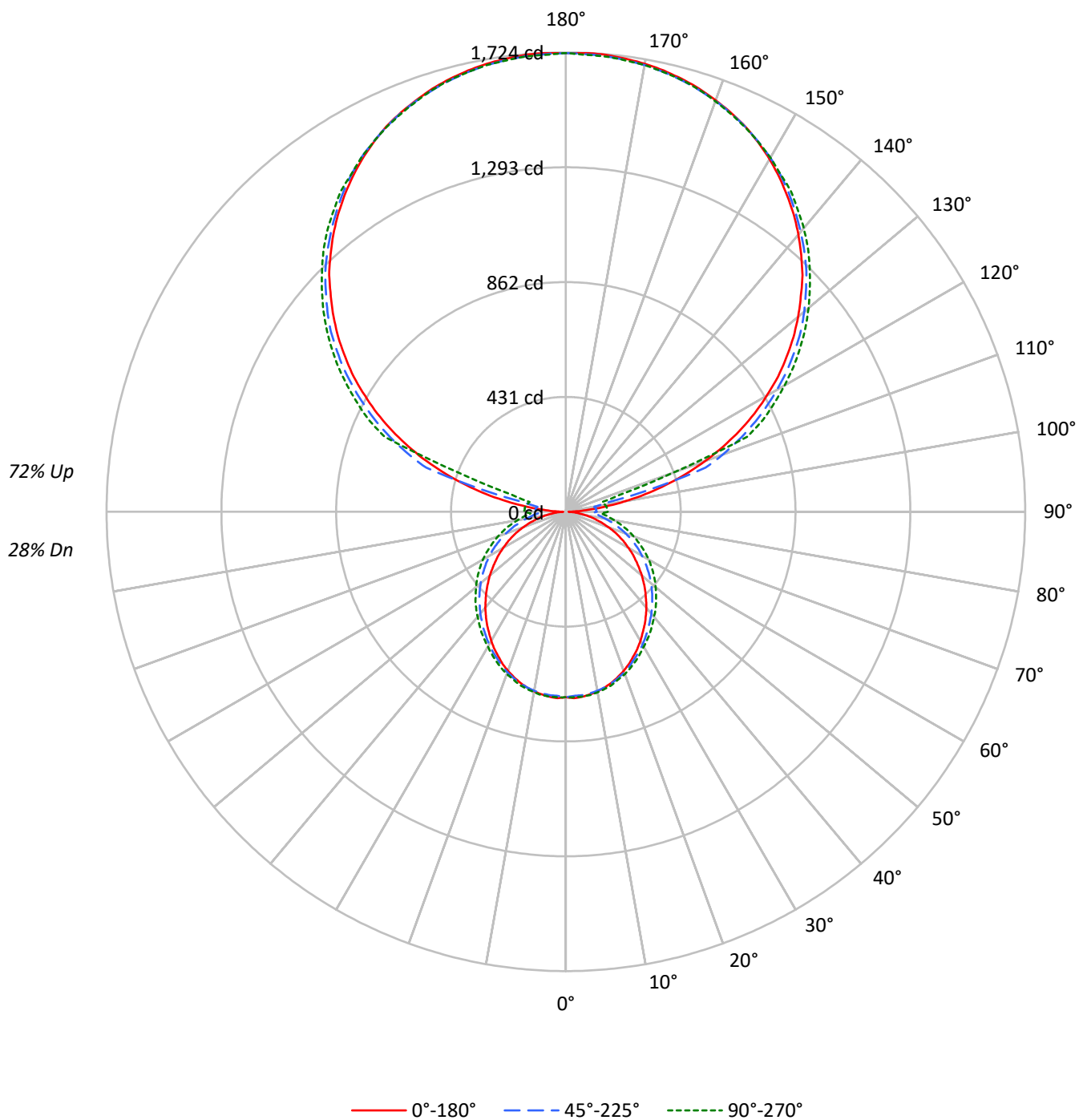
Lumens per Lamp: N/A
Luminaire Lumens: 7592.1 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

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	50	30	10
RCR																				
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36			28
1	92	88	84	80	82	79	75	72	61	59	57	46	44	43	31	30	29			23
2	84	76	70	65	75	68	63	59	53	50	47	40	37	35	27	25	24			18
3	76	67	60	54	68	60	54	49	47	43	39	35	32	29	24	22	20			15
4	70	59	51	45	62	53	46	41	41	37	33	31	28	25	21	19	17			13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15			11
6	59	47	39	33	52	42	35	30	33	28	24	25	21	19	17	15	13			10
7	54	42	34	29	48	38	31	26	30	25	21	22	19	16	15	13	12			9
8	50	38	30	25	44	34	28	23	27	22	19	20	17	14	14	12	10			8
9	46	34	27	22	41	31	25	20	25	20	17	19	15	13	13	11	9			7
10	43	31	24	20	39	28	22	18	23	18	15	17	14	12	12	10	8			6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7495	7495	7495
5°	7515	7275	7269
10°	7444	7078	7023
15°	7347	6860	6764
20°	7206	6618	6484
25°	7034	6344	6195
30°	6858	6097	5905
35°	6661	5837	5668
40°	6471	5601	5418
45°	6263	5371	5212
50°	6056	5144	4988
55°	5827	4910	4783
60°	5602	4671	4572
65°	5371	4417	4325
70°	5027	4132	4071
75°	4588	3807	3809
80°	4077	3477	3510
85°	3573	3211	3296

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6263 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.0	0.9
10°-20°	188.3	2.5
20°-30°	281.6	3.7
30°-40°	336.2	4.4
40°-50°	351.8	4.6
50°-60°	330.1	4.3
60°-70°	275.7	3.6
70°-80°	197.1	2.6
80°-90°	120.8	1.6
90°-100°	134.4	1.8
100°-110°	347.7	4.6
110°-120°	755.5	10.0
120°-130°	933.8	12.3
130°-140°	984.7	13.0
140°-150°	914.1	12.0
150°-160°	735.8	9.7
160°-170°	474.8	6.3
170°-180°	163.6	2.2
0°-30°	535.9	7.1
0°-40°	872.1	11.5
0°-60°	1553.9	20.5
0°-90°	2147.5	28.3
90°-120°	1237.7	16.3
90°-150°	4070.3	53.6
90°-180°	5445.0	71.7
0°-180°	7592.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	696	696	696	696	696	
5°	697	696	691	697	696	66
15°	664	666	665	673	672	187
25°	599	607	609	619	619	276
35°	516	528	538	549	552	323
45°	422	440	459	473	479	325
55°	322	347	374	394	400	288
65°	222	252	285	308	316	220
75°	121	156	194	219	228	129
85°	37	75	115	141	149	38
90°	11	61	116	147	158	11
95°	86	64	115	147	155	100
105°	387	420	337	132	141	410
115°	719	736	774	805	817	710
125°	1010	1020	1048	1066	1074	903
135°	1256	1263	1277	1294	1294	967
145°	1449	1457	1459	1468	1471	907
155°	1595	1592	1594	1600	1592	735
165°	1682	1678	1677	1687	1678	475
175°	1722	1715	1716	1726	1715	164
180°	1722	1722	1722	1722	1722	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	696.3	696.3	696.3	696.3	696.3
2.5°	700.1	697.8	691.7	697.8	697.0
5°	697.0	695.5	691.0	697.0	696.3
7.5°	691.7	691.7	687.2	694.7	694.0
10°	684.1	685.6	681.9	689.4	687.9
12.5°	675.0	677.3	675.0	681.9	680.3
15°	663.7	665.9	665.2	672.8	672.0
17.5°	650.0	654.6	653.8	660.6	659.1
20°	634.8	639.4	640.9	647.7	648.5
22.5°	618.9	623.5	625.7	634.8	634.1
25°	599.2	606.8	609.0	618.9	618.9
27.5°	580.2	588.6	593.1	601.5	602.2
30°	559.7	569.6	575.7	584.8	584.8
32.5°	537.0	548.4	556.7	566.6	568.8
35°	515.8	527.9	537.7	549.1	552.2
37.5°	493.0	506.7	518.0	530.9	533.2
40°	470.2	483.9	499.1	512.0	515.0
42.5°	445.2	462.7	478.6	493.0	497.5
45°	421.7	439.9	458.9	473.3	479.3
47.5°	396.7	417.2	438.4	454.3	458.9
50°	372.4	393.6	417.2	434.6	439.9
52.5°	346.6	369.4	395.9	414.1	420.9
55°	321.6	346.6	373.9	394.4	400.5
57.5°	297.3	323.1	352.7	373.2	380.0
60°	271.5	298.8	329.9	351.2	359.5
62.5°	247.3	275.3	308.7	329.9	337.5
65°	222.2	251.8	285.2	307.9	315.5
67.5°	197.2	228.3	261.7	286.7	292.8
70°	170.7	203.3	239.7	263.9	271.5
72.5°	146.4	179.0	216.9	241.9	249.5
75°	120.6	156.2	194.2	219.2	228.3
77.5°	98.6	134.2	172.2	198.7	205.5
80°	75.1	112.3	151.7	177.5	185.1
82.5°	54.6	92.5	132.7	158.5	166.1
85°	37.2	75.1	115.3	141.1	148.7
87.5°	22.8	60.7	99.4	125.1	132.7
90°	11.2	61.1	116.4	147.3	157.5
92.5°	38.5	63.4	112.9	146.9	155.0
95°	86.3	63.5	114.8	147.2	154.8
97.5°	149.6	141.1	111.4	144.5	153.3
100°	223.0	272.8	108.2	140.4	149.3
102.5°	306.7	344.5	156.1	135.1	145.3
105°	387.3	419.5	337.0	131.8	141.2
107.5°	472.2	499.6	549.9	373.4	212.6
110°	557.2	581.0	625.4	603.0	426.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	639.0	658.6	701.4	732.0	736.2
115°	718.8	735.6	774.4	805.4	816.6
117.5°	798.1	813.2	845.3	873.8	881.1
120°	870.2	885.5	914.5	942.1	947.4
122.5°	944.4	955.0	983.6	1006.6	1013.2
125°	1010.2	1020.4	1047.6	1066.0	1073.9
127.5°	1076.7	1086.2	1111.6	1130.5	1133.3
130°	1138.1	1147.6	1167.9	1187.4	1189.3
132.5°	1196.2	1206.4	1221.6	1240.3	1241.9
135°	1256.3	1263.2	1276.7	1294.2	1294.1
137.5°	1307.4	1317.0	1324.8	1343.3	1344.6
140°	1357.9	1365.6	1371.6	1388.1	1389.4
142.5°	1405.2	1412.1	1415.9	1429.7	1429.6
145°	1448.7	1456.9	1459.4	1468.1	1471.1
147.5°	1490.1	1496.5	1499.1	1503.9	1500.5
150°	1528.5	1532.3	1534.9	1537.5	1535.1
152.5°	1563.0	1564.3	1565.6	1570.7	1564.3
155°	1595.0	1592.5	1593.7	1600.1	1592.5
157.5°	1620.6	1620.6	1619.3	1627.0	1616.8
160°	1643.6	1642.3	1641.1	1648.7	1639.8
162.5°	1665.4	1661.5	1660.2	1669.2	1661.5
165°	1682.0	1678.2	1676.9	1687.1	1678.2
167.5°	1696.1	1690.9	1690.9	1701.2	1690.9
170°	1707.6	1702.5	1702.5	1712.7	1702.5
172.5°	1715.2	1708.8	1710.1	1720.4	1708.8
175°	1721.6	1715.2	1716.5	1725.5	1715.2
177.5°	1724.2	1717.8	1719.1	1729.3	1716.5
180°	1721.6	1721.6	1721.6	1721.6	1721.6

(END OF REPORT)