

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: P987419

Luminaire Tested: S122DR-B1005DB27-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P987419
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DR-B1005DB27-4F0-XX-W2A-D
Description: Define 2 Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

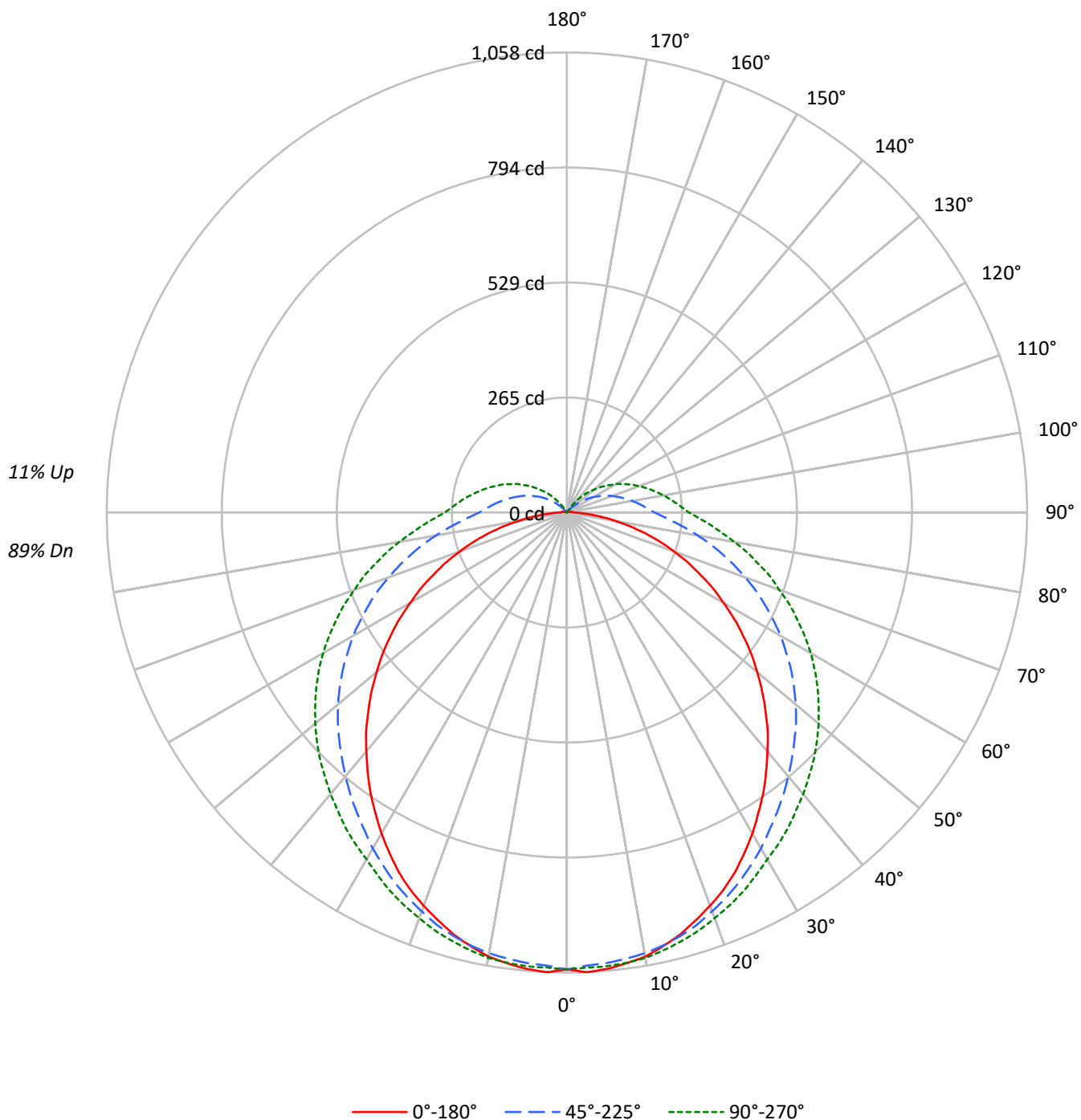
Lumens per Lamp: N/A
Luminaire Lumens: 4009.0 lumens
Efficiency: N/A
Efficacy: 65.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 61.3
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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92
1	104	98	93	88	100	95	90	86	88	85	81	82	79	77	77	75	72
2	94	84	77	70	90	81	74	68	76	70	65	71	66	62	66	62	59
3	85	73	64	57	81	71	63	56	66	59	54	62	56	51	58	53	49
4	77	64	55	48	74	62	54	47	58	51	45	55	48	43	51	46	42
5	71	57	48	41	68	56	47	40	52	44	39	49	42	37	46	40	36
6	65	51	42	35	63	50	41	35	47	39	34	44	37	32	42	36	31
7	60	46	37	31	58	45	37	31	43	35	30	40	34	29	38	32	28
8	56	42	34	28	54	41	33	27	39	32	26	37	30	25	35	29	25
9	52	39	30	25	50	38	30	24	36	29	24	34	27	23	32	26	22
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16632	16632	16632
5°	16743	16525	16646
10°	16668	16546	16716
15°	16470	16519	16719
20°	16212	16443	16724
25°	15957	16383	16781
30°	15586	16310	16838
35°	15212	16273	17125
40°	14820	16361	17463
45°	14452	16566	17965
50°	14061	16911	18600
55°	13658	17356	19415
60°	13160	17982	20489
65°	12660	18821	21900
70°	12121	20156	24029
75°	11455	22629	27846
80°	10410	27903	35670
85°	9953	44806	60298

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 110502 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.6	2.5
10°-20°	285.7	7.1
20°-30°	432.8	10.8
30°-40°	527.1	13.1
40°-50°	567.1	14.1
50°-60°	550.7	13.7
60°-70°	481.0	12.0
70°-80°	370.2	9.2
80°-90°	247.9	6.2
90°-100°	171.0	4.3
100°-110°	124.9	3.1
110°-120°	82.5	2.1
120°-130°	45.9	1.1
130°-140°	19.3	0.5
140°-150°	3.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	818.1	20.4
0°-40°	1345.2	33.6
0°-60°	2463.0	61.4
0°-90°	3562.1	88.9
90°-120°	378.4	9.4
90°-150°	446.9	11.1
90°-180°	447.0	11.1
0°-180°	4009.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1051	1051	1051	1051	1051	
5°	1054	1049	1040	1049	1048	100
15°	1005	1008	1008	1022	1020	283
25°	914	924	938	956	961	420
35°	787	813	842	876	886	492
45°	646	687	740	787	802	498
55°	495	550	629	684	704	443
65°	338	413	502	565	585	336
75°	187	273	370	436	455	198
85°	55	149	247	311	332	58
90°	15	104	201	262	280	11
95°	12	84	175	233	251	10
105°	8	52	131	184	201	9
115°	6	23	91	137	154	6
125°	3	3	52	93	107	3
135°	2	2	17	49	61	2
145°	0	0	0	9	17	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1058.3	1053.7	1043.1	1050.7	1047.6
5°	1053.7	1049.2	1040.0	1049.2	1047.6
7.5°	1046.1	1043.1	1035.4	1046.1	1044.6
10°	1037.0	1033.9	1029.4	1041.5	1040.0
12.5°	1021.7	1023.3	1020.2	1032.4	1030.9
15°	1005.0	1008.0	1008.0	1021.7	1020.2
17.5°	983.7	989.8	994.3	1008.0	1008.0
20°	962.4	970.0	976.1	992.8	992.8
22.5°	939.5	948.7	957.8	974.5	977.6
25°	913.6	924.3	938.0	956.3	960.8
27.5°	883.2	899.9	915.2	938.0	941.0
30°	852.7	872.5	892.3	916.7	921.2
32.5°	819.2	842.1	866.4	895.4	904.5
35°	787.2	813.1	842.1	875.6	886.2
37.5°	752.2	781.2	817.7	854.2	864.9
40°	717.2	750.7	791.8	831.4	845.1
42.5°	683.7	717.2	765.9	810.1	823.8
45°	645.6	686.7	740.0	787.2	802.5
47.5°	609.1	653.2	714.2	762.9	779.6
50°	571.0	618.2	686.7	738.5	755.3
52.5°	534.5	584.7	657.8	711.1	729.4
55°	494.9	549.7	628.9	683.7	703.5
57.5°	456.8	517.7	596.9	656.3	676.1
60°	415.7	481.2	568.0	625.8	647.2
62.5°	379.2	447.7	534.5	596.9	616.7
65°	338.0	412.7	502.5	564.9	584.7
67.5°	301.5	379.2	470.5	533.0	554.3
70°	261.9	341.1	435.5	501.0	519.2
72.5°	225.4	307.6	403.5	467.5	490.3
75°	187.3	272.6	370.0	435.5	455.3
77.5°	150.7	239.1	338.0	403.5	424.8
80°	114.2	207.1	306.1	370.0	391.3
82.5°	83.7	175.1	275.6	339.6	359.4
85°	54.8	149.2	246.7	310.6	332.0
87.5°	33.5	124.9	222.3	284.7	304.5
90°	15.2	103.5	201.0	261.9	280.2
92.5°	13.7	94.4	187.3	246.7	265.0
95°	12.2	83.7	175.1	233.0	251.2
97.5°	10.7	76.1	164.5	220.8	239.1
100°	10.7	67.0	152.3	208.6	225.4
102.5°	9.1	59.4	141.6	196.4	213.2
105°	7.6	51.8	131.0	184.2	201.0
107.5°	7.6	44.2	120.3	172.1	188.8
110°	6.1	36.5	111.2	159.9	176.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.1	30.5	100.5	149.2	166.0
115°	6.1	22.8	91.4	137.0	153.8
117.5°	4.6	16.7	80.7	126.4	141.6
120°	4.6	10.7	71.6	114.2	131.0
122.5°	4.6	6.1	62.4	103.5	117.2
125°	3.0	3.0	51.8	92.9	106.6
127.5°	3.0	1.5	42.6	80.7	94.4
130°	3.0	1.5	33.5	70.0	82.2
132.5°	3.0	1.5	24.4	59.4	71.6
135°	1.5	1.5	16.7	48.7	60.9
137.5°	1.5	1.5	9.1	38.1	48.7
140°	1.5	0.0	3.0	27.4	36.5
142.5°	1.5	0.0	0.0	18.3	25.9
145°	0.0	0.0	0.0	9.1	16.7
147.5°	0.0	0.0	0.0	1.5	6.1
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)