

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: P994996

Luminaire Tested: S123RDR-B560DB40-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P994996
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-B560DB40-4F0-XX-W2A-F
Description: Define 3 Regressed Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

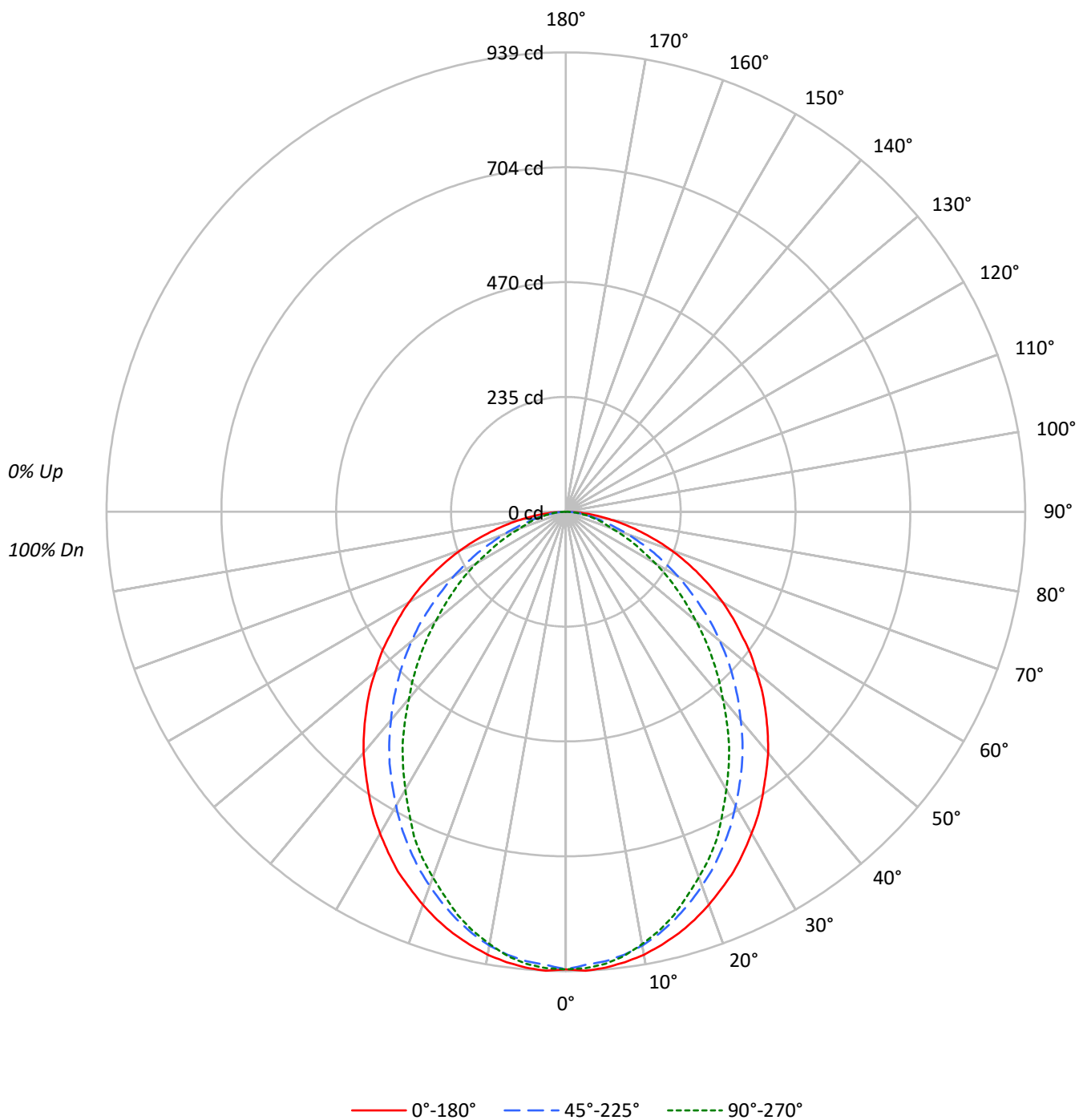
Lumens per Lamp: N/A
Luminaire Lumens: 2113.0 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 24
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

TEST NUMBER: P994996

CATALOG NUMBER: S123RDR-B560DB40-4F0-XX-W2A-F

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	105	101	98	107	103	99	96	99	96	93		95	93	90		91
2	100	93	86	81	98	91	85	80	87	83	78		84	80	77		81
3	92	82	75	68	90	81	74	68	78	72	67		75	70	66		73
4	85	73	65	59	83	72	64	58	70	63	58		67	62	57		65
5	78	66	57	51	76	65	57	51	63	56	50		61	55	50		59
6	73	60	51	45	71	59	51	45	57	50	45		55	49	44		54
7	67	54	46	40	66	54	46	40	52	45	40		51	44	39		49
8	63	50	42	36	61	49	41	36	48	41	36		47	40	36		46
9	59	46	38	33	58	45	38	33	44	37	32		43	37	32		42
10	55	43	35	30	54	42	35	30	41	34	30		40	34	29		39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10067	10067	10067
5°	10106	9967	10024
10°	10049	9841	9809
15°	9941	9611	9510
20°	9793	9323	9107
25°	9640	9000	8712
30°	9437	8627	8155
35°	9230	8253	7645
40°	9039	7813	7013
45°	8788	7378	6444
50°	8510	6884	5806
55°	8227	6320	5210
60°	7970	5716	4555
65°	7631	5061	3902
70°	7210	4249	3150
75°	6592	3344	2965
80°	5876	2963	2727
85°	4965	2618	2433

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8788 cd/sqm

TEST NUMBER: P994996

CATALOG NUMBER: S123RDR-B560DB40-4F0-XX-W2A-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.9	4.2
10°-20°	244.6	11.6
20°-30°	352.2	16.7
30°-40°	396.6	18.8
40°-50°	379.4	18.0
50°-60°	310.5	14.7
60°-70°	209.4	9.9
70°-80°	105.0	5.0
80°-90°	27.5	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	684.7	32.4
0°-40°	1081.3	51.2
0°-60°	1771.2	83.8
0°-90°	2113.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2113.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	935	935	935	935	935	
5°	935	932	922	929	928	89
15°	892	884	862	859	853	251
25°	812	793	758	742	734	373
35°	702	675	628	596	582	440
45°	577	543	485	442	423	445
55°	438	401	337	293	278	393
65°	300	258	199	162	153	297
75°	158	122	80	73	71	169
85°	40	24	21	20	20	47
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	935.3	935.3	935.3	935.3	935.3
2.5°	939.1	936.1	927.0	935.3	933.8
5°	935.3	931.5	922.4	929.2	927.7
7.5°	928.5	924.7	913.3	917.8	915.6
10°	919.4	914.1	900.4	901.2	897.4
12.5°	906.5	900.4	883.0	882.2	877.6
15°	892.1	883.7	862.5	858.7	853.4
17.5°	874.6	865.5	839.0	831.4	823.8
20°	854.9	842.8	813.9	804.1	795.0
22.5°	832.9	818.5	787.4	774.5	766.1
25°	811.7	792.7	757.8	741.9	733.5
27.5°	785.9	765.4	727.5	706.2	693.3
30°	759.3	736.6	694.1	668.3	656.1
32.5°	732.8	706.2	660.7	631.9	619.0
35°	702.4	675.1	628.1	595.5	581.8
37.5°	672.1	642.5	593.2	556.8	540.1
40°	643.3	609.9	556.0	516.6	499.1
42.5°	610.6	577.3	521.1	477.1	462.0
45°	577.3	543.1	484.7	441.5	423.3
47.5°	544.6	506.7	449.1	402.0	386.1
50°	508.2	472.6	411.1	364.1	346.7
52.5°	475.6	436.2	375.5	326.2	311.0
55°	438.4	401.3	336.8	292.8	277.6
57.5°	405.1	364.9	299.6	257.9	245.0
60°	370.2	328.5	265.5	224.5	211.6
62.5°	335.3	293.6	230.6	192.7	179.0
65°	299.6	257.9	198.7	161.6	153.2
67.5°	264.0	221.5	163.8	135.8	126.7
70°	229.1	188.1	135.0	108.5	100.1
72.5°	194.2	154.0	107.0	86.5	84.2
75°	158.5	122.1	80.4	72.8	71.3
77.5°	125.9	92.5	63.0	58.4	56.9
80°	94.8	63.7	47.8	45.5	44.0
82.5°	65.2	39.4	34.1	31.9	31.9
85°	40.2	23.5	21.2	19.7	19.7
87.5°	18.2	9.9	9.9	9.1	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)