

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: P994980

Luminaire Tested: S123RDR-B560DB27-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P994980
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-B560DB27-4F0-XX-W2A-F
Description: Define 3 Regressed Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

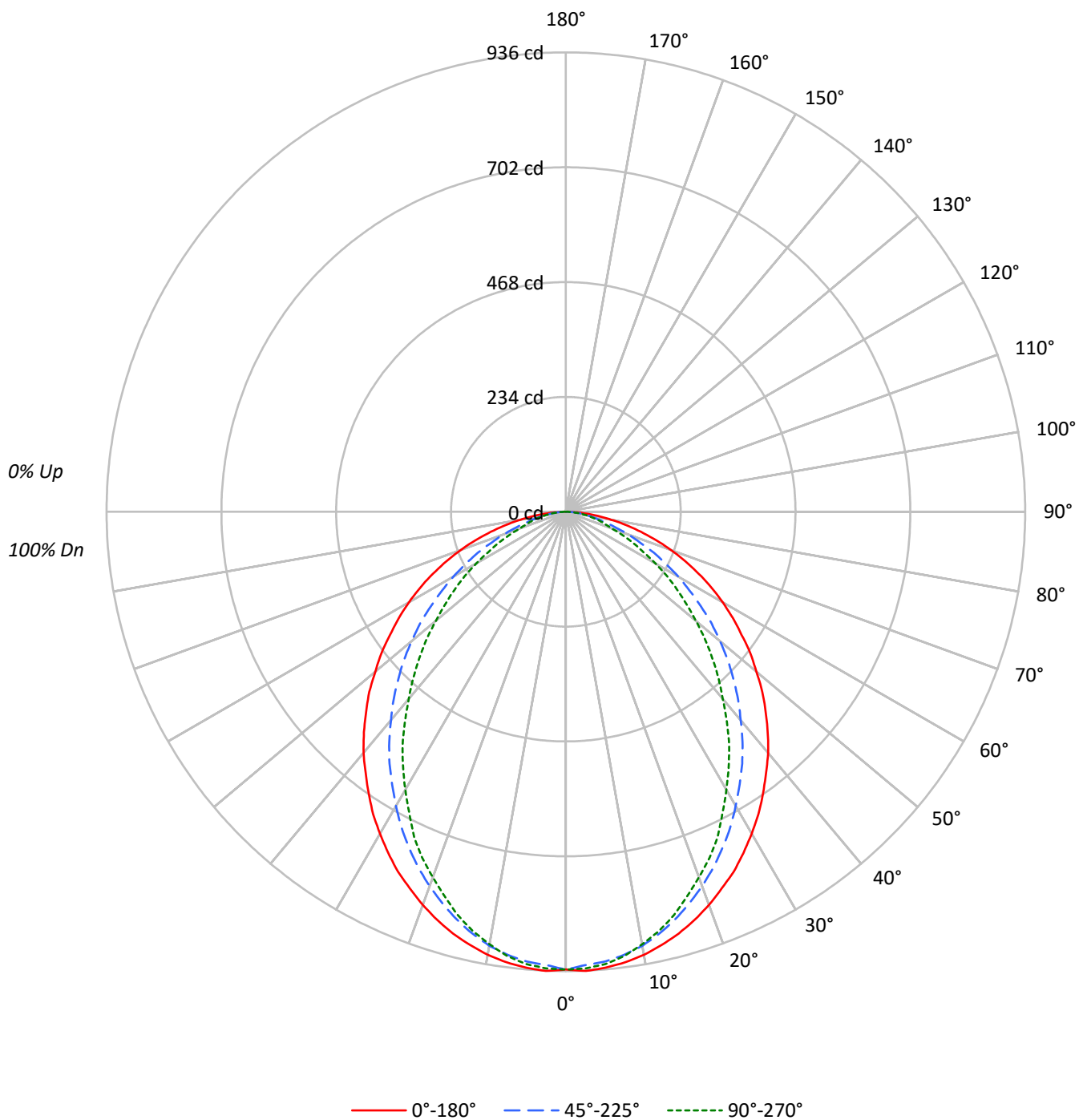
Lumens per Lamp: N/A
Luminaire Lumens: 2107.0 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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

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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86		
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62		
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54		
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47		
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44	42		
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37		
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34		
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30		
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	28		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10038	10038	10038
5°	10077	9938	9996
10°	10021	9813	9780
15°	9912	9584	9482
20°	9765	9297	9080
25°	9612	8974	8687
30°	9411	8602	8132
35°	9203	8230	7624
40°	9012	7790	6993
45°	8762	7357	6425
50°	8487	6866	5789
55°	8205	6302	5195
60°	7946	5698	4542
65°	7610	5048	3892
70°	7188	4236	3141
75°	6575	3335	2957
80°	5858	2957	2721
85°	4952	2618	2433

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8762 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.7	4.2
10°-20°	243.9	11.6
20°-30°	351.2	16.7
30°-40°	395.5	18.8
40°-50°	378.3	18.0
50°-60°	309.7	14.7
60°-70°	208.8	9.9
70°-80°	104.7	5.0
80°-90°	27.4	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°	682.7	32.4
0°-40°	1078.2	51.2
0°-60°	1766.1	83.8
0°-90°	2107.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2107.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	933	933	933	933	933	
5°	933	929	920	927	925	88
15°	890	881	860	856	851	251
25°	809	790	756	740	731	372
35°	700	673	626	594	580	438
45°	576	542	483	440	422	444
55°	437	400	336	292	277	392
65°	299	257	198	161	153	296
75°	158	122	80	73	71	168
85°	40	23	21	20	20	46
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	932.6	932.6	932.6	932.6	932.6
2.5°	936.4	933.4	924.3	932.6	931.1
5°	932.6	928.9	919.8	926.6	925.1
7.5°	925.8	922.1	910.7	915.2	913.0
10°	916.8	911.5	897.8	898.6	894.8
12.5°	903.9	897.8	880.4	879.7	875.2
15°	889.5	881.2	860.0	856.2	850.9
17.5°	872.1	863.1	836.6	829.0	821.4
20°	852.5	840.4	811.6	801.8	792.7
22.5°	830.5	816.2	785.1	772.3	764.0
25°	809.3	790.4	755.6	739.8	731.4
27.5°	783.6	763.2	725.4	704.2	691.3
30°	757.2	734.5	692.1	666.4	654.3
32.5°	730.7	704.2	658.8	630.1	617.2
35°	700.4	673.2	626.3	593.8	580.2
37.5°	670.2	640.7	591.5	555.2	538.6
40°	641.4	608.1	554.4	515.1	497.7
42.5°	608.9	575.6	519.6	475.8	460.6
45°	575.6	541.6	483.3	440.2	422.1
47.5°	543.1	505.3	447.8	400.9	385.0
50°	506.8	471.2	410.0	363.1	345.7
52.5°	474.3	434.9	374.4	325.3	310.1
55°	437.2	400.1	335.8	292.0	276.8
57.5°	403.9	363.8	298.8	257.2	244.3
60°	369.1	327.5	264.7	223.9	211.0
62.5°	334.3	292.7	229.9	192.1	178.5
65°	298.8	257.2	198.2	161.1	152.8
67.5°	263.2	220.9	163.4	135.4	126.3
70°	228.4	187.6	134.6	108.2	99.8
72.5°	193.6	153.5	106.7	86.2	84.0
75°	158.1	121.8	80.2	72.6	71.1
77.5°	125.6	92.3	62.8	58.2	56.7
80°	94.5	63.5	47.7	45.4	43.9
82.5°	65.1	39.3	34.0	31.8	31.8
85°	40.1	23.4	21.2	19.7	19.7
87.5°	18.2	9.8	9.8	9.1	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)