

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: P1055640

Luminaire Tested: S123R3DR-S560D850-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055640
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-4)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S560D850-X4F0-XX-UDD-FLL-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

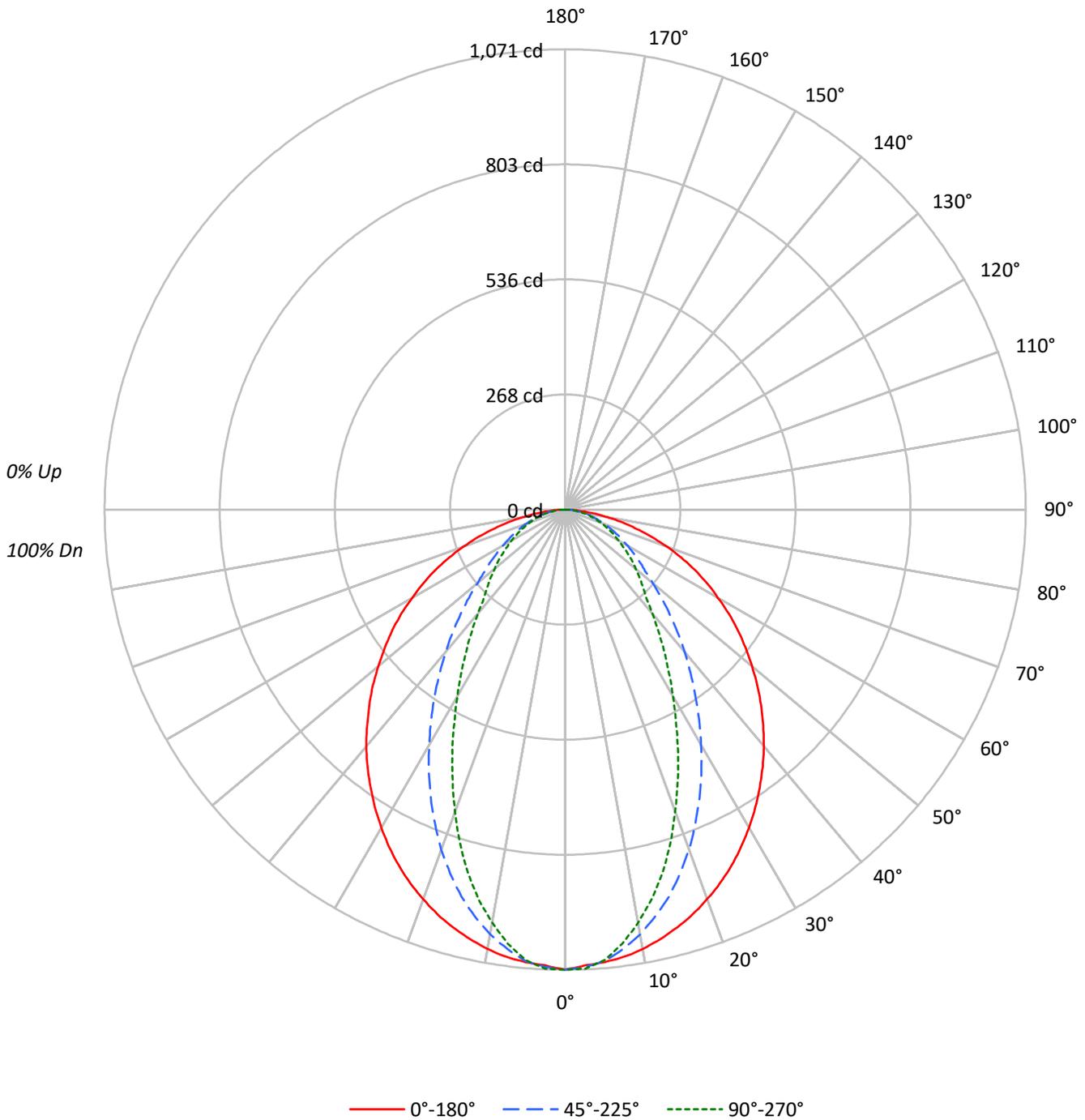
Lumens per Lamp: N/A
Luminaire Lumens: 1877.9 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
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: P1055640

CATALOG NUMBER: S123R3DR-S560D850-X4F0-XX-UDD-FLL-W

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20										
RC	80									70									50									30									10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0														
RCR																																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																				
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86																				
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74																				
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65																				
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57																				
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50																				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45																				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40																				
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39	37																				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34																				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12909	12909	12909
5°	12794	12764	12735
10°	12716	12285	11951
15°	12565	11635	10915
20°	12381	10799	9597
25°	12167	9833	8257
30°	11896	8797	6979
35°	11610	7780	5893
40°	11319	6794	4953
45°	10979	5858	4370
50°	10635	4987	4010
55°	10319	4444	3704
60°	9886	4017	3458
65°	9483	3677	3244
70°	8837	3388	3049
75°	7910	3135	2874
80°	6783	2888	2666
85°	4759	2656	2545

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10979 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.3	5.3
10°-20°	262.6	14.0
20°-30°	345.9	18.4
30°-40°	351.1	18.7
40°-50°	305.2	16.3
50°-60°	239.1	12.7
60°-70°	162.4	8.7
70°-80°	88.0	4.7
80°-90°	24.2	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°	707.8	37.7
0°-40°	1058.9	56.4
0°-60°	1603.2	85.4
0°-90°	1877.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1877.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1071	1071	1071	1071	1071	
5°	1057	1070	1055	1045	1052	100
15°	1007	992	932	886	874	284
25°	915	859	739	647	621	421
35°	789	695	529	428	400	493
45°	644	517	344	265	256	497
55°	491	341	211	180	176	438
65°	332	184	129	115	114	328
75°	170	85	67	62	62	181
85°	34	21	19	18	18	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1070.7	1070.7	1070.7	1070.7	1070.7
2.5°	1061.9	1075.5	1065.1	1065.9	1069.1
5°	1057.1	1069.9	1054.7	1045.1	1052.3
7.5°	1049.9	1059.5	1031.5	1016.3	1018.7
10°	1038.7	1041.9	1003.5	979.4	976.2
12.5°	1023.5	1017.9	969.8	934.6	929.0
15°	1006.7	992.3	932.2	886.5	874.5
17.5°	987.5	963.4	888.1	832.1	813.7
20°	965.0	931.4	841.7	770.4	748.0
22.5°	941.0	897.8	791.2	707.2	683.9
25°	914.6	859.3	739.2	647.1	620.7
27.5°	885.7	820.9	686.3	587.8	558.2
30°	854.5	780.8	631.9	530.2	501.3
32.5°	822.5	738.4	579.8	476.5	448.5
35°	788.8	695.1	528.6	427.7	400.4
37.5°	754.4	651.1	478.9	381.2	355.6
40°	719.2	606.2	431.7	338.0	314.7
42.5°	681.5	561.4	386.0	297.1	279.5
45°	643.9	516.6	343.6	265.1	256.3
47.5°	606.2	470.9	303.5	242.7	234.7
50°	567.0	426.9	265.9	221.8	213.8
52.5°	528.6	383.6	234.7	201.8	196.2
55°	490.9	341.2	211.4	180.2	176.2
57.5°	451.7	299.5	188.2	163.4	158.6
60°	410.0	259.5	166.6	145.8	143.4
62.5°	372.4	221.8	147.4	130.5	128.1
65°	332.4	184.2	128.9	115.3	113.7
67.5°	291.5	153.0	112.1	100.9	100.1
70°	250.7	128.9	96.1	87.3	86.5
72.5°	210.6	106.5	80.9	75.3	73.7
75°	169.8	84.9	67.3	62.5	61.7
77.5°	132.9	65.7	53.7	50.5	49.7
80°	97.7	48.9	41.6	39.2	38.4
82.5°	64.1	33.6	29.6	28.0	28.0
85°	34.4	20.8	19.2	17.6	18.4
87.5°	12.0	8.8	8.8	8.0	8.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)