

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: P1059282

Luminaire Tested: S123RDR-S560D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059282
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S560D850-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

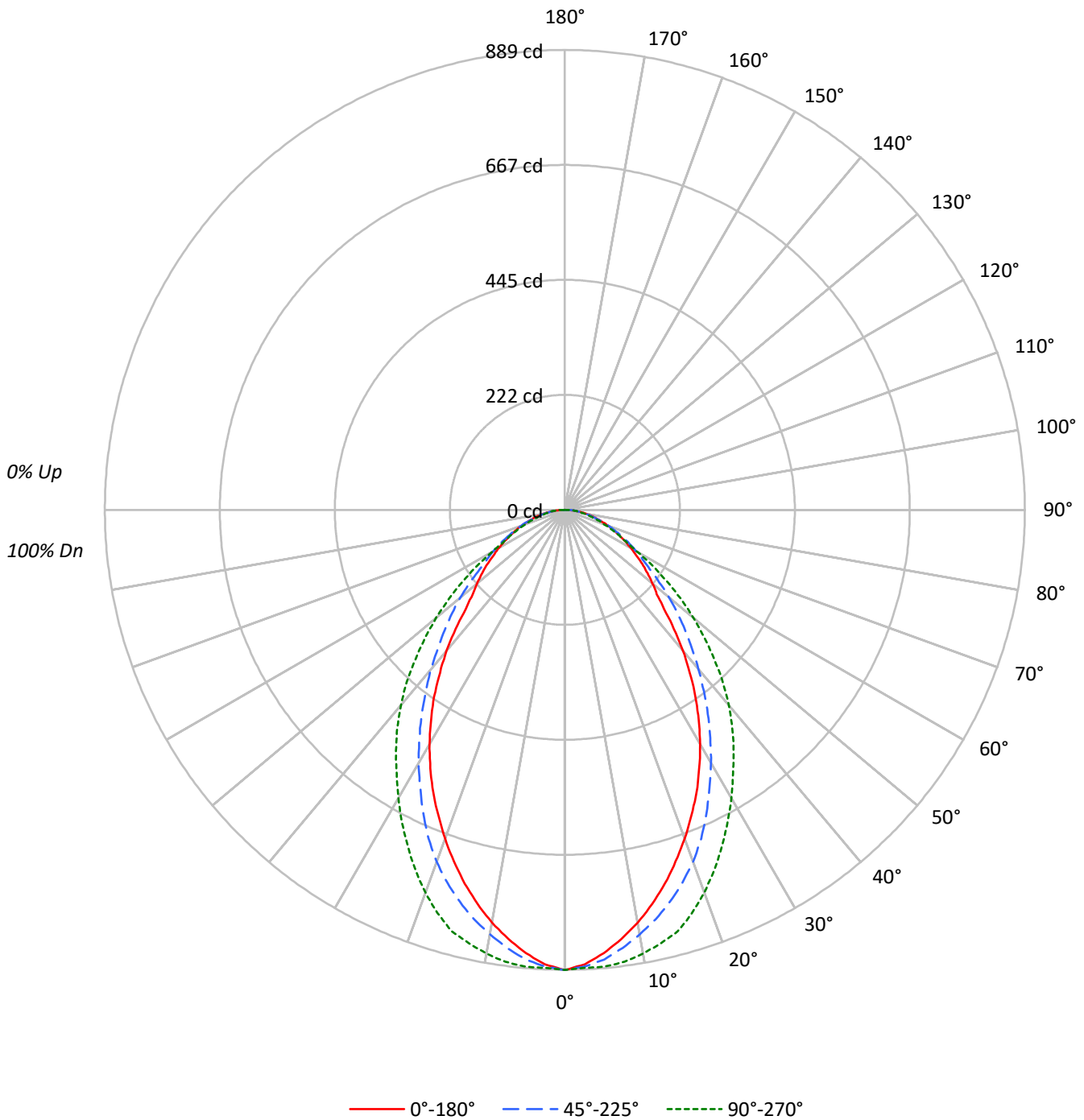
Lumens per Lamp: N/A
Luminaire Lumens: 1562.8 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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

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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	0
RW	70	50	30	10	70	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	108	104	101	97	100	97	94	96	94	92	92	91	89	87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10444	10444	10444
5°	10141	10284	10447
10°	9664	9938	10385
15°	9091	9537	10254
20°	8455	9048	9842
25°	7805	8389	9301
30°	7089	7659	8728
35°	6309	6912	8152
40°	5443	6159	7555
45°	4499	5454	6775
50°	4041	4810	5915
55°	3744	4105	4905
60°	3452	3739	3758
65°	3212	3381	3148
70°	3021	3076	2760
75°	2849	2745	2432
80°	2691	2482	2279
85°	2573	2789	2573

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6775 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.4	5.3
10°-20°	221.9	14.2
20°-30°	300.2	19.2
30°-40°	308.5	19.7
40°-50°	259.1	16.6
50°-60°	185.8	11.9
60°-70°	118.3	7.6
70°-80°	65.0	4.2
80°-90°	21.7	1.4
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°	604.5	38.7
0°-40°	913.0	58.4
0°-60°	1357.9	86.9
0°-90°	1562.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1562.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	889	889	889	889	889	
5°	860	876	872	879	886	81
15°	748	768	784	818	844	210
25°	602	625	648	683	718	276
35°	440	464	482	525	569	274
45°	271	295	328	376	408	214
55°	183	187	200	227	240	163
65°	116	122	122	115	113	115
75°	63	69	60	56	54	67
85°	19	20	21	21	19	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	889.4	889.4	889.4	889.4	889.4
2.5°	879.4	891.7	883.3	884.0	886.3
5°	860.3	875.6	872.5	878.7	886.3
7.5°	836.6	853.4	854.2	868.7	881.0
10°	810.5	828.2	833.5	855.7	871.0
12.5°	779.9	799.1	810.5	838.1	858.0
15°	747.8	768.5	784.5	818.2	843.5
17.5°	712.6	734.8	755.4	791.4	817.4
20°	676.6	700.3	724.1	757.7	787.6
22.5°	639.1	663.6	688.1	721.0	753.9
25°	602.4	625.3	647.5	682.7	717.9
27.5°	562.6	586.3	605.4	644.5	681.2
30°	522.8	546.5	564.9	605.4	643.7
32.5°	481.4	505.9	522.8	564.9	604.7
35°	440.1	463.8	482.2	525.1	568.7
37.5°	396.5	422.5	440.9	489.1	531.9
40°	355.1	379.6	401.8	452.3	492.9
42.5°	312.3	337.5	362.8	414.8	452.3
45°	270.9	294.7	328.4	375.8	408.0
47.5°	241.1	256.4	295.4	335.2	365.9
50°	221.2	227.3	263.3	298.5	323.8
52.5°	201.3	205.9	230.4	262.5	281.7
55°	182.9	186.8	200.5	227.3	239.6
57.5°	163.0	166.9	178.3	193.6	200.5
60°	147.0	150.0	159.2	161.5	160.0
62.5°	130.9	135.5	140.1	134.7	132.4
65°	115.6	122.5	121.7	114.8	113.3
67.5°	101.8	108.7	104.9	98.0	95.7
70°	88.0	94.9	89.6	82.7	80.4
72.5°	75.0	82.7	74.2	68.1	66.6
75°	62.8	68.9	60.5	55.9	53.6
77.5°	51.3	55.9	48.2	44.4	42.9
80°	39.8	42.9	36.7	34.4	33.7
82.5°	29.1	30.6	26.8	28.3	27.6
85°	19.1	19.9	20.7	21.4	19.1
87.5°	9.2	13.0	13.0	12.2	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)