

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059279

Luminaire Tested: S123RDRP-S560D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059279
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D850-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

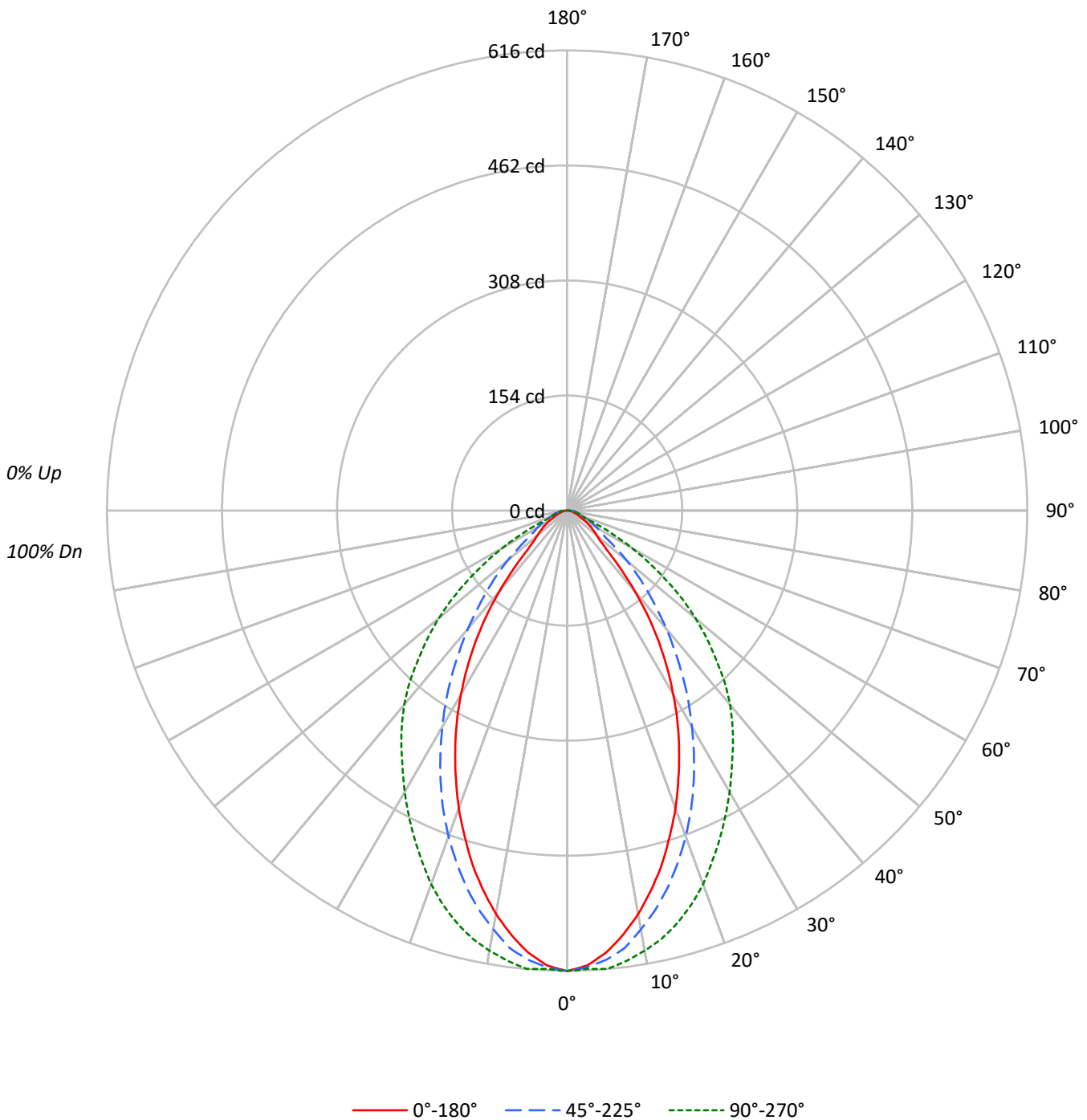
Lumens per Lamp: N/A
Luminaire Lumens: 827.6 lumens
Efficiency: N/A
Efficacy: 42.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	111	108	105	102	109	106	103	100	102	99	97		98	96	94		94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85		89	86	83		86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75		82	78	74		79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67		75	70	66		73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	60		69	64	60		68	63	59	58
6	79	68	61	55	78	67	60	55	66	59	55		64	59	54		63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50		60	54	50		58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46		55	50	46		54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42		52	46	42		51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39		49	43	39		48	43	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7239	7239	7239
5°	7005	7114	7259
10°	6539	6785	7133
15°	5959	6341	6945
20°	5302	5799	6652
25°	4594	5190	6271
30°	3852	4527	5898
35°	3052	3853	5545
40°	2160	3170	5201
45°	1272	2506	4680
50°	952	1904	4099
55°	800	1286	3292
60°	648	1097	2339
65°	511	936	1234
70°	446	814	762
75°	417	762	730
80°	412	832	724
85°	512	1240	930

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4680 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	6.9
10°-20°	147.5	17.8
20°-30°	187.8	22.7
30°-40°	176.7	21.3
40°-50°	127.2	15.4
50°-60°	73.5	8.9
60°-70°	33.6	4.1
70°-80°	16.8	2.0
80°-90°	7.9	1.0
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°	392.0	47.4
0°-40°	568.7	68.7
0°-60°	769.3	93.0
0°-90°	827.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	827.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	616	616	616	616	616	
5°	594	604	604	610	616	55
15°	490	508	522	551	571	137
25°	355	373	401	445	484	162
35°	213	231	269	331	387	132
45°	77	96	151	227	282	65
55°	39	41	63	120	161	35
65°	18	26	34	38	44	19
75°	9	18	17	16	16	10
85°	4	8	9	8	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	616.5	616.5	616.5	616.5	616.5
2.5°	609.6	617.3	611.9	612.7	614.2
5°	594.3	604.3	603.5	609.6	615.8
7.5°	572.9	584.4	590.5	599.7	608.1
10°	548.4	561.4	569.0	585.9	598.2
12.5°	520.0	536.9	546.8	569.0	586.7
15°	490.2	507.8	521.6	550.7	571.3
17.5°	456.5	475.6	493.2	527.7	553.0
20°	424.3	442.7	464.1	501.6	532.3
22.5°	389.1	409.0	433.5	473.3	507.8
25°	354.6	373.0	400.6	445.0	484.0
27.5°	320.1	338.5	367.6	416.6	459.5
30°	284.1	303.3	333.9	388.3	435.0
32.5°	248.9	267.3	301.8	360.7	409.7
35°	212.9	231.3	268.8	330.9	386.8
37.5°	177.7	196.8	236.7	306.4	363.8
40°	140.9	161.6	206.8	281.1	339.3
42.5°	106.5	128.7	176.9	255.0	312.5
45°	76.6	95.7	150.9	226.7	281.8
47.5°	59.7	69.7	127.1	197.6	253.5
50°	52.1	53.6	104.2	170.8	224.4
52.5°	45.2	46.7	81.9	145.5	193.8
55°	39.1	40.6	62.8	119.5	160.8
57.5°	32.9	35.2	52.1	95.0	129.4
60°	27.6	30.6	46.7	72.8	99.6
62.5°	22.2	27.6	39.8	53.6	71.2
65°	18.4	26.0	33.7	37.5	44.4
67.5°	15.3	23.7	28.3	26.8	26.0
70°	13.0	21.4	23.7	21.4	22.2
72.5°	10.7	19.9	19.9	18.4	18.4
75°	9.2	17.6	16.8	16.1	16.1
77.5°	7.7	15.3	14.6	13.8	13.0
80°	6.1	12.3	12.3	11.5	10.7
82.5°	5.4	10.0	10.0	10.0	8.4
85°	3.8	8.4	9.2	8.4	6.9
87.5°	3.1	7.7	7.7	6.9	4.6
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	6.84	8.16	7.21	8.47	8.79	14.21	15.53	14.58	15.84	16.16
	3H	8.23	9.40	8.61	9.73	10.09	14.44	15.61	14.82	15.94	16.31
	4H	8.78	9.87	9.19	10.22	10.61	14.56	15.65	14.96	16.00	16.38
	6H	9.22	10.22	9.63	10.59	10.99	14.67	15.67	15.09	16.04	16.44
	8H	9.40	10.35	9.83	10.74	11.14	14.72	15.67	15.15	16.06	16.47
	12H	9.55	10.46	9.99	10.84	11.27	14.78	15.69	15.21	16.07	16.50
4H	2H	7.94	9.03	8.35	9.39	9.77	14.17	15.26	14.57	15.61	16.00
	3H	9.60	10.50	10.02	10.90	11.30	14.53	15.42	14.94	15.83	16.23
	4H	10.41	11.21	10.85	11.63	12.08	14.73	15.53	15.16	15.95	16.39
	6H	11.05	11.74	11.52	12.19	12.66	14.95	15.65	15.42	16.09	16.56
	8H	11.29	11.94	11.76	12.38	12.85	15.06	15.70	15.53	16.15	16.62
	12H	11.50	12.07	11.99	12.56	13.03	15.19	15.76	15.67	16.24	16.72
8H	4H	10.86	11.50	11.33	11.95	12.42	14.76	15.41	15.23	15.86	16.33
	6H	11.77	12.30	12.28	12.80	13.28	15.09	15.62	15.60	16.12	16.60
	8H	12.20	12.67	12.72	13.19	13.68	15.28	15.76	15.80	16.28	16.77
	12H	12.61	13.03	13.13	13.53	14.10	15.53	15.96	16.05	16.45	17.02
12H	4H	10.92	11.49	11.40	11.97	12.44	14.75	15.33	15.24	15.81	16.28
	6H	11.91	12.39	12.43	12.90	13.39	15.11	15.59	15.63	16.10	16.59
	8H	12.45	12.87	12.97	13.37	13.94	15.37	15.79	15.88	16.28	16.86