

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: P1055633

Luminaire Tested: S123R3DRP-S560D835-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055633
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-6)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DRP-S560D835-X4F0-XX-UDD-F-S
Description: DEFINE 3, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

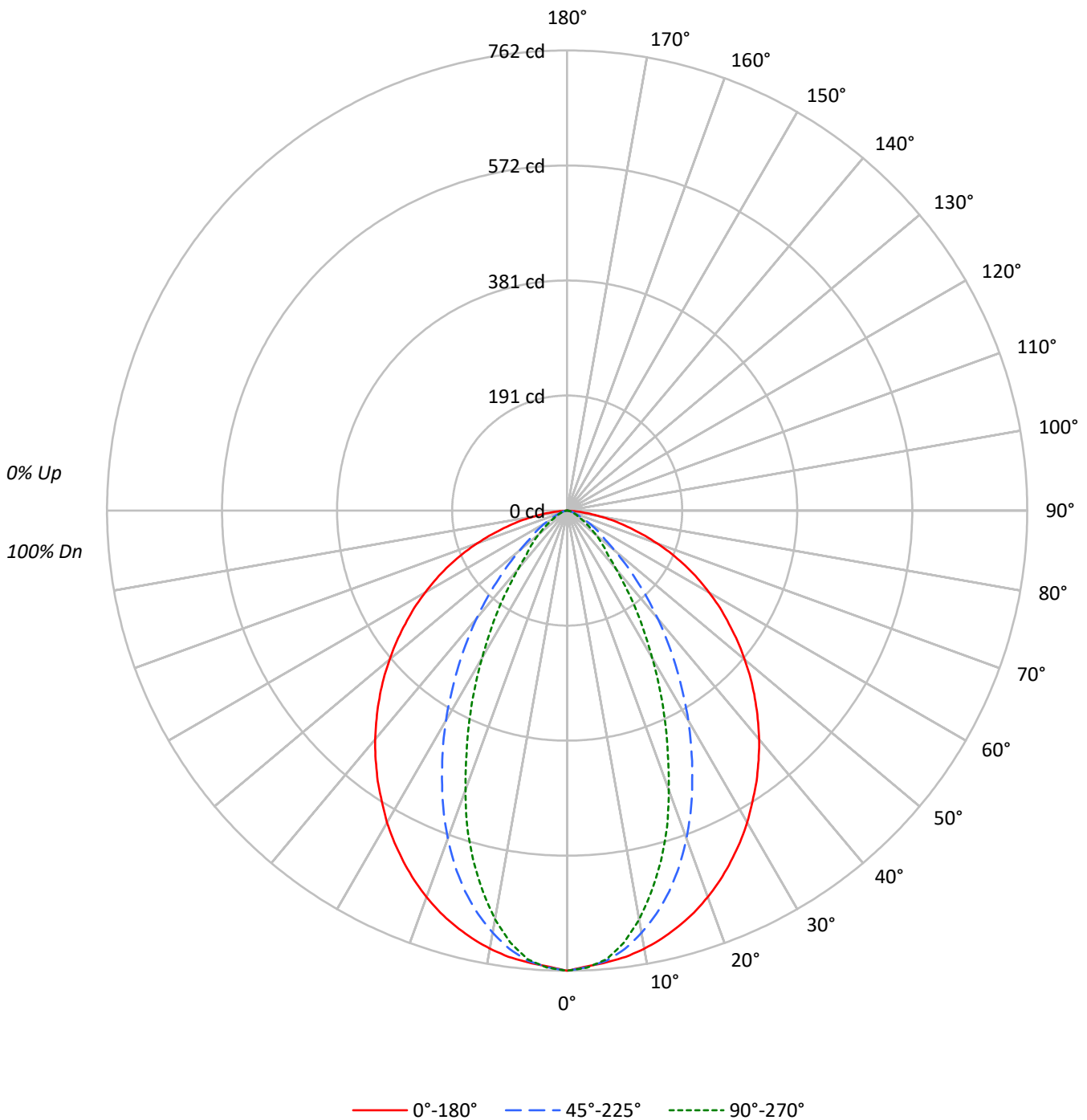
Lumens per Lamp: N/A
Luminaire Lumens: 1059.5 lumens
Efficiency: N/A
Efficacy: 55.5 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.77 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (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	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79
3	96	88	81	76	94	86	80	76	84	78	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56
6	78	67	60	54	77	66	59	54	65	58	53	63	57	53	62	57	53	51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46
8	69	57	50	45	68	57	50	45	56	49	45	54	49	44	53	48	44	42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9186	9186	9186
5°	9089	9054	9028
10°	9018	8691	8417
15°	8897	8148	7490
20°	8737	7412	6310
25°	8531	6522	5091
30°	8304	5589	3920
35°	8046	4613	2901
40°	7786	3672	1978
45°	7499	2745	1490
50°	7193	1909	1165
55°	6876	1396	849
60°	6547	1044	610
65°	6159	702	474
70°	5573	508	381
75°	4812	368	303
80°	3860	299	250
85°	1992	304	194

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7499 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.4	6.6
10°-20°	183.3	17.3
20°-30°	230.3	21.7
30°-40°	214.5	20.2
40°-50°	164.2	15.5
50°-60°	109.1	10.3
60°-70°	58.8	5.6
70°-80°	24.1	2.3
80°-90°	4.6	0.4
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°	484.1	45.7
0°-40°	698.6	65.9
0°-60°	971.9	91.7
0°-90°	1059.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1059.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	762	762	762	762	762	
5°	751	759	748	745	746	71
15°	713	701	653	614	600	201
25°	641	598	490	409	383	295
35°	547	466	313	222	197	342
45°	440	325	161	95	87	339
55°	327	189	66	46	40	293
65°	216	73	25	18	17	213
75°	103	17	8	7	6	111
85°	14	2	2	2	1	21
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	761.9	761.9	761.9	761.9	761.9
2.5°	755.4	764.7	756.8	757.5	757.5
5°	751.0	759.0	748.1	745.3	746.0
7.5°	745.3	750.3	732.3	722.9	721.4
10°	736.6	738.0	709.9	693.3	687.5
12.5°	725.8	720.7	683.9	656.4	645.6
15°	712.8	701.2	652.8	614.5	600.1
17.5°	698.3	678.8	617.4	567.6	550.3
20°	681.0	653.5	577.7	515.6	491.8
22.5°	662.2	626.8	535.8	462.2	435.5
25°	641.3	597.9	490.3	408.7	382.7
27.5°	619.6	566.9	445.6	358.2	331.5
30°	596.5	535.1	401.5	309.1	281.6
32.5°	571.2	500.4	356.0	263.6	236.1
35°	546.7	465.8	313.4	221.7	197.1
37.5°	520.7	431.1	272.2	184.9	157.4
40°	494.7	395.7	233.3	148.8	125.7
42.5°	467.2	360.3	196.4	118.4	100.4
45°	439.8	325.0	161.0	94.6	87.4
47.5°	412.3	289.6	130.0	81.6	74.4
50°	383.5	255.6	101.8	69.3	62.1
52.5°	356.0	221.7	79.4	57.0	50.5
55°	327.1	189.2	66.4	46.2	40.4
57.5°	300.4	156.0	54.9	36.1	31.8
60°	271.5	126.4	43.3	28.2	25.3
62.5°	244.1	98.9	33.2	22.4	20.2
65°	215.9	72.9	24.6	18.1	16.6
67.5°	187.8	52.7	18.8	14.4	13.7
70°	158.1	39.7	14.4	11.6	10.8
72.5°	130.0	28.2	10.8	9.4	8.7
75°	103.3	17.3	7.9	7.2	6.5
77.5°	79.4	10.1	5.8	5.8	5.1
80°	55.6	5.8	4.3	4.3	3.6
82.5°	33.9	3.6	2.9	2.9	2.9
85°	14.4	2.2	2.2	2.2	1.4
87.5°	2.2	0.7	0.7	0.7	0.7
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	17.52	18.87	17.88	19.19	19.50	6.09	7.45	6.46	7.76	8.08
	3H	19.27	20.48	19.65	20.81	21.17	6.75	7.96	7.13	8.29	8.65
	4H	19.97	21.10	20.37	21.45	21.83	6.95	8.07	7.35	8.42	8.81
	6H	20.48	21.52	20.90	21.89	22.28	7.07	8.11	7.49	8.48	8.87
	8H	20.62	21.60	21.05	21.99	22.40	7.11	8.09	7.54	8.48	8.88
	12H	20.67	21.61	21.11	21.99	22.42	7.12	8.05	7.55	8.44	8.87
4H	2H	17.33	18.45	17.73	18.80	19.18	6.65	7.77	7.05	8.12	8.51
	3H	19.12	20.04	19.53	20.44	20.85	7.45	8.37	7.86	8.77	9.17
	4H	19.81	20.64	20.25	21.06	21.50	7.70	8.53	8.14	8.95	9.39
	6H	20.38	21.09	20.85	21.54	22.00	7.90	8.61	8.37	9.06	9.52
	8H	20.56	21.22	21.03	21.67	22.14	7.96	8.62	8.43	9.07	9.54
	12H	20.64	21.23	21.13	21.71	22.19	7.99	8.57	8.47	9.06	9.53
8H	4H	19.69	20.35	20.16	20.80	21.27	8.02	8.68	8.49	9.13	9.60
	6H	20.24	20.79	20.75	21.28	21.76	8.27	8.81	8.77	9.30	9.78
	8H	20.42	20.91	20.94	21.42	21.91	8.35	8.84	8.87	9.35	9.85
	12H	20.52	20.95	21.04	21.45	22.02	8.43	8.86	8.95	9.36	9.93
12H	4H	19.65	20.23	20.13	20.72	21.19	8.06	8.65	8.55	9.13	9.60
	6H	20.19	20.67	20.71	21.19	21.68	8.31	8.80	8.83	9.31	9.80
	8H	20.38	20.81	20.89	21.30	21.87	8.44	8.87	8.95	9.36	9.93