

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: P1056479

Luminaire Tested: S125R3DR-S850D927-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056479
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S850D927-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

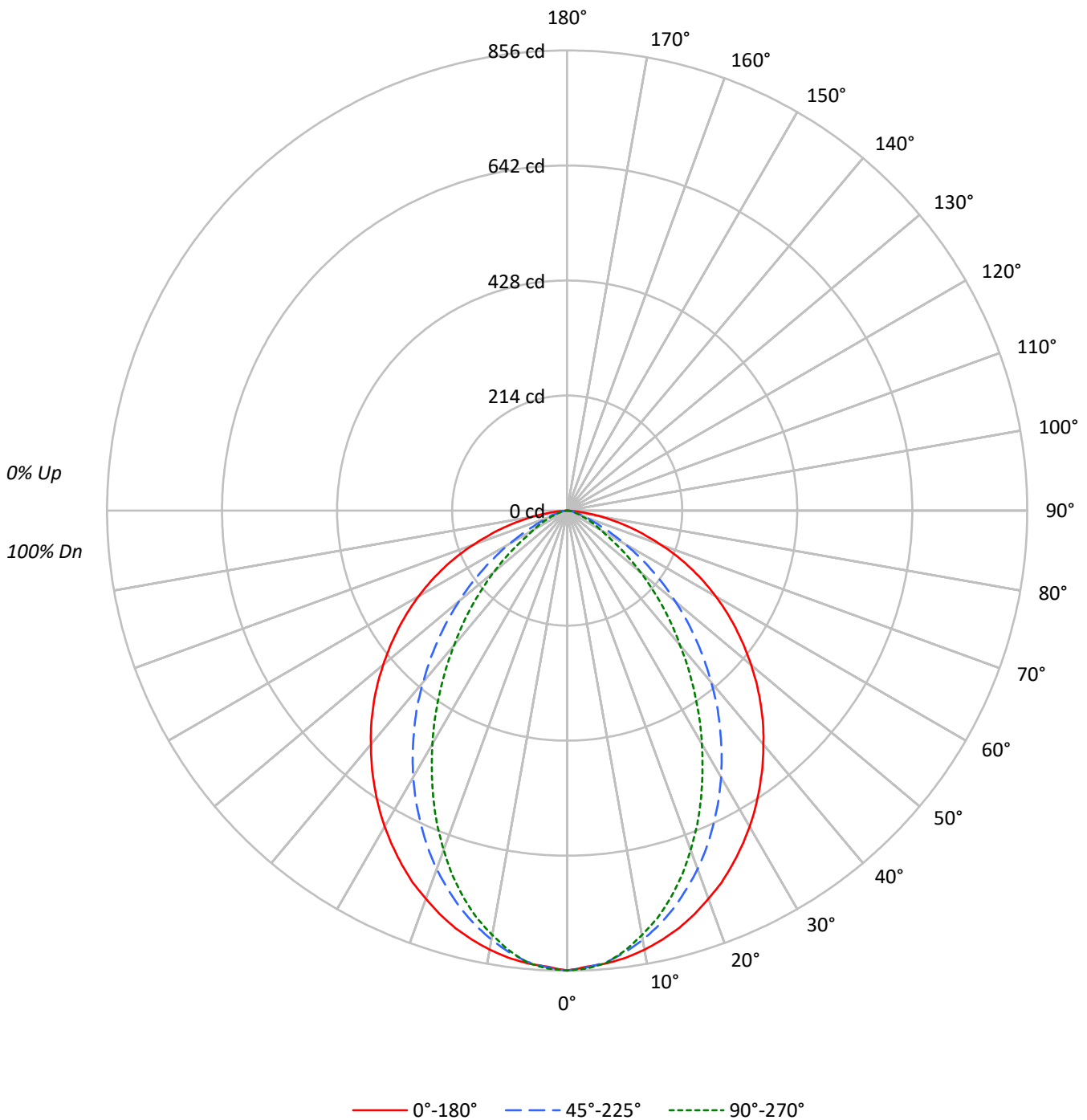
Lumens per Lamp: N/A
Luminaire Lumens: 1546.3 lumens
Efficiency: N/A
Efficacy: 58.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6049	6049	6049
5°	5999	5982	5993
10°	5954	5817	5755
15°	5885	5606	5455
20°	5781	5340	5054
25°	5672	5023	4597
30°	5542	4675	4094
35°	5394	4280	3562
40°	5242	3845	3012
45°	5093	3390	2494
50°	4914	2884	1960
55°	4725	2343	1426
60°	4513	1748	1019
65°	4240	1153	795
70°	3832	802	556
75°	3332	519	432
80°	2614	387	354
85°	1346	324	260

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5093 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.7	5.2
10°-20°	216.6	14.0
20°-30°	299.6	19.4
30°-40°	317.4	20.5
40°-50°	277.0	17.9
50°-60°	197.0	12.7
60°-70°	109.6	7.1
70°-80°	42.1	2.7
80°-90°	7.3	0.5
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°	595.9	38.5
0°-40°	913.3	59.1
0°-60°	1387.4	89.7
0°-90°	1546.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1546.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	856	856	856	856	856	
5°	845	852	843	840	844	80
15°	804	797	766	749	745	226
25°	727	703	644	604	589	335
35°	625	582	496	436	413	391
45°	509	448	339	271	250	393
55°	383	307	190	132	116	343
65°	254	166	69	51	48	250
75°	122	48	19	16	16	129
85°	17	5	4	3	3	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	855.6	855.6	855.6	855.6	855.6
2.5°	849.2	857.9	850.8	851.6	852.4
5°	845.3	851.6	842.9	840.5	844.5
7.5°	838.9	843.7	828.6	823.1	825.5
10°	829.4	831.0	810.4	802.5	801.7
12.5°	817.5	815.2	789.8	777.1	776.3
15°	804.1	796.9	766.0	749.4	745.4
17.5°	787.4	776.3	738.3	716.9	710.6
20°	768.4	753.4	709.8	682.1	671.8
22.5°	749.4	728.8	678.1	643.3	632.2
25°	727.2	702.7	644.0	604.4	589.4
27.5°	703.5	674.1	609.2	563.2	545.0
30°	678.9	644.8	572.7	521.3	501.5
32.5°	652.8	613.9	534.7	478.5	457.9
35°	625.0	582.3	495.9	435.7	412.7
37.5°	597.3	549.8	457.9	393.7	369.9
40°	568.0	516.5	416.7	350.9	326.4
42.5°	539.5	482.4	377.9	310.5	288.4
45°	509.4	448.4	339.1	270.9	249.5
47.5°	478.5	412.7	300.2	233.7	212.3
50°	446.8	377.9	262.2	197.3	178.2
52.5°	415.1	343.0	226.6	162.4	145.8
55°	383.4	307.4	190.1	131.5	115.7
57.5°	351.7	272.5	156.1	103.0	88.7
60°	319.2	236.9	123.6	76.0	72.1
62.5°	286.8	202.0	95.9	62.6	59.4
65°	253.5	166.4	68.9	50.7	47.5
67.5°	220.2	133.9	49.9	38.8	36.4
70°	185.4	102.2	38.8	29.3	26.9
72.5°	152.1	73.7	27.7	21.4	20.6
75°	122.0	47.5	19.0	15.8	15.8
77.5°	91.9	28.5	13.5	11.9	11.9
80°	64.2	16.6	9.5	8.7	8.7
82.5°	38.8	8.7	6.3	5.5	5.5
85°	16.6	4.8	4.0	3.2	3.2
87.5°	3.2	1.6	1.6	1.6	1.6
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	17.41	18.86	17.78	19.17	19.49	10.05	11.50	10.42	11.81	12.13
	3H	18.97	20.26	19.35	20.59	20.95	10.62	11.90	10.99	12.23	12.59
	4H	19.49	20.70	19.90	21.05	21.43	10.74	11.94	11.14	12.29	12.67
	6H	19.83	20.94	20.25	21.31	21.70	10.80	11.91	11.22	12.28	12.67
	8H	19.91	20.97	20.34	21.36	21.76	10.81	11.86	11.24	12.25	12.65
	12H	19.94	20.94	20.37	21.33	21.76	10.80	11.80	11.23	12.19	12.62
4H	2H	17.31	18.51	17.71	18.86	19.24	10.62	11.82	11.02	12.17	12.55
	3H	18.98	19.96	19.39	20.37	20.77	11.29	12.28	11.70	12.68	13.08
	4H	19.53	20.41	19.96	20.83	21.27	11.45	12.33	11.88	12.75	13.19
	6H	19.92	20.68	20.38	21.13	21.59	11.56	12.32	12.02	12.77	13.23
	8H	20.02	20.74	20.49	21.18	21.65	11.57	12.28	12.03	12.73	13.20
	12H	20.07	20.70	20.56	21.18	21.66	11.57	12.20	12.05	12.68	13.16
8H	4H	19.43	20.14	19.90	20.59	21.06	11.72	12.43	12.18	12.87	13.34
	6H	19.82	20.40	20.32	20.90	21.37	11.85	12.43	12.35	12.93	13.41
	8H	19.92	20.45	20.44	20.96	21.45	11.88	12.40	12.39	12.91	13.40
	12H	19.99	20.45	20.50	20.94	21.51	11.90	12.36	12.41	12.86	13.42
12H	4H	19.39	20.03	19.88	20.51	20.98	11.73	12.36	12.21	12.84	13.32
	6H	19.76	20.29	20.28	20.80	21.29	11.86	12.39	12.38	12.90	13.39
	8H	19.89	20.36	20.40	20.85	21.42	11.92	12.38	12.43	12.88	13.44