

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: P1056480

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

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056480  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)  
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-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

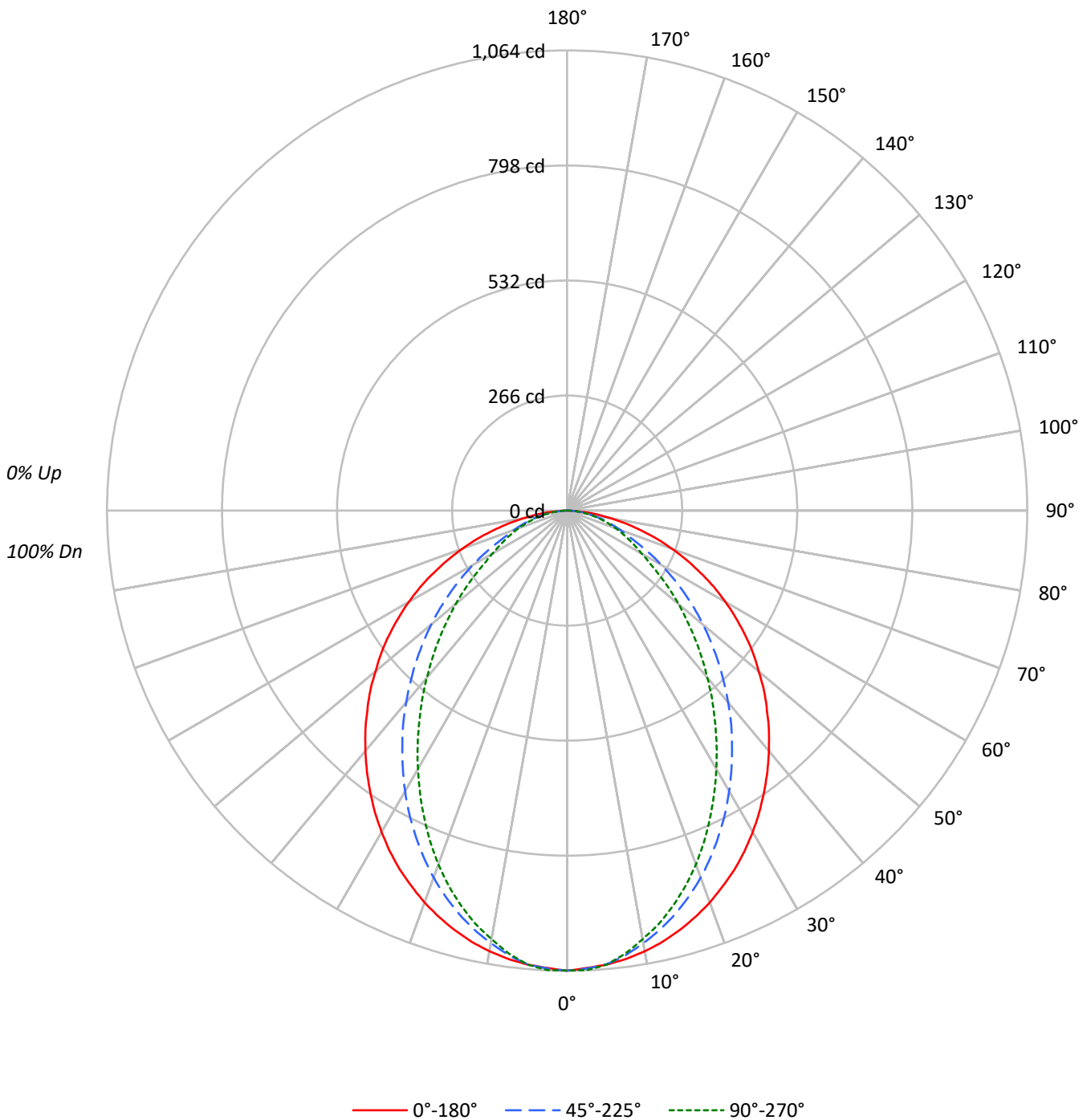
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2254.9 lumens  
Efficiency: N/A  
Efficacy: 85.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17  
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 (A<sub>in</sub>): 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	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7521	7521	7521
5°	7477	7471	7477
10°	7427	7290	7222
15°	7352	7068	6923
20°	7253	6794	6550
25°	7143	6469	6105
30°	7003	6117	5632
35°	6851	5736	5141
40°	6696	5344	4657
45°	6533	4934	4174
50°	6360	4514	3694
55°	6199	4052	3212
60°	5981	3562	2822
65°	5684	3021	2625
70°	5339	2701	2456
75°	4826	2488	2316
80°	4193	2259	2162
85°	3277	1995	1995

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6533 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.5	4.4
10°-20°	273.3	12.1
20°-30°	386.1	17.1
30°-40°	425.0	18.8
40°-50°	396.5	17.6
50°-60°	316.5	14.0
60°-70°	213.0	9.4
70°-80°	113.4	5.0
80°-90°	31.5	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°	758.9	33.7
0°-40°	1184.0	52.5
0°-60°	1897.0	84.1
0°-90°	2254.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2254.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1064	1064	1064	1064	1064	
5°	1054	1062	1053	1050	1054	100
15°	1004	999	966	949	946	283
25°	916	888	829	793	783	422
35°	794	747	665	612	596	497
45°	654	592	494	433	418	505
55°	503	427	329	276	261	449
65°	340	265	181	160	157	337
75°	177	117	91	86	85	188
85°	40	28	25	25	25	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1063.9	1063.9	1063.9	1063.9	1063.9
2.5°	1058.4	1067.1	1059.9	1061.5	1063.1
5°	1053.6	1062.3	1052.8	1049.6	1053.6
7.5°	1045.7	1052.8	1037.0	1029.8	1033.0
10°	1034.6	1039.3	1015.6	1006.1	1006.1
12.5°	1021.1	1021.1	992.6	979.1	979.1
15°	1004.5	998.9	965.7	949.0	945.9
17.5°	985.5	975.2	935.6	914.2	910.2
20°	964.1	947.4	903.1	875.4	870.6
22.5°	940.3	918.9	867.4	833.4	827.8
25°	915.8	888.0	829.4	793.0	782.7
27.5°	888.0	854.8	790.6	749.4	736.7
30°	857.9	819.9	749.4	703.5	690.0
32.5°	827.0	784.3	707.4	658.3	643.3
35°	793.8	747.0	664.6	612.4	595.7
37.5°	760.5	709.8	622.7	568.0	550.6
40°	725.6	670.2	579.1	522.8	504.6
42.5°	690.8	631.4	536.3	479.3	460.3
45°	653.5	591.8	493.5	433.3	417.5
47.5°	617.9	551.4	451.5	392.9	375.5
50°	578.3	509.4	410.4	351.7	335.9
52.5°	541.9	468.2	369.2	314.5	297.9
55°	503.0	427.0	328.8	276.5	260.6
57.5°	462.6	385.8	289.9	240.8	225.8
60°	423.0	344.6	251.9	206.8	199.6
62.5°	382.6	305.8	216.3	181.4	176.7
65°	339.8	265.4	180.6	160.0	156.9
67.5°	299.4	226.6	152.1	140.2	137.0
70°	258.3	187.7	130.7	120.4	118.8
72.5°	217.8	150.5	110.1	103.0	101.4
75°	176.7	117.2	91.1	85.6	84.8
77.5°	138.6	87.9	72.1	69.7	68.1
80°	103.0	65.8	55.5	53.9	53.1
82.5°	70.5	45.2	39.6	39.6	38.0
85°	40.4	27.7	24.6	25.3	24.6
87.5°	15.1	11.9	11.1	11.9	11.9
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	18.30	19.84	18.66	20.15	20.47	14.68	16.22	15.05	16.53	16.85
	3H	20.08	21.47	20.46	21.79	22.16	16.16	17.54	16.53	17.87	18.23
	4H	20.74	22.04	21.14	22.38	22.76	16.75	18.05	17.15	18.39	18.77
	6H	21.21	22.41	21.63	22.78	23.17	17.21	18.41	17.62	18.78	19.17
	8H	21.37	22.51	21.79	22.90	23.30	17.37	18.51	17.80	18.90	19.30
	12H	21.46	22.56	21.89	22.94	23.37	17.48	18.58	17.91	18.96	19.39
4H	2H	18.43	19.73	18.83	20.08	20.46	15.36	16.66	15.76	17.00	17.38
	3H	20.40	21.48	20.81	21.88	22.28	17.03	18.11	17.44	18.51	18.91
	4H	21.15	22.12	21.58	22.54	22.98	17.74	18.71	18.17	19.13	19.56
	6H	21.74	22.59	22.20	23.03	23.49	18.32	19.17	18.78	19.61	20.07
	8H	21.95	22.74	22.41	23.19	23.65	18.53	19.32	18.99	19.77	20.24
	12H	22.10	22.81	22.58	23.28	23.75	18.69	19.40	19.17	19.88	20.35
8H	4H	21.21	22.00	21.67	22.45	22.91	18.10	18.89	18.56	19.34	19.81
	6H	21.87	22.53	22.37	23.02	23.49	18.80	19.46	19.30	19.95	20.43
	8H	22.13	22.71	22.64	23.22	23.71	19.09	19.68	19.60	20.19	20.67
	12H	22.33	22.85	22.84	23.35	23.91	19.33	19.85	19.84	20.34	20.91
12H	4H	21.20	21.91	21.69	22.39	22.86	18.15	18.86	18.63	19.34	19.81
	6H	21.87	22.46	22.38	22.96	23.45	18.88	19.47	19.39	19.97	20.46
	8H	22.16	22.68	22.67	23.17	23.74	19.22	19.74	19.73	20.23	20.80