

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: P1056488

Luminaire Tested: S125R3DR-S850D940-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056488
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-S850D940-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

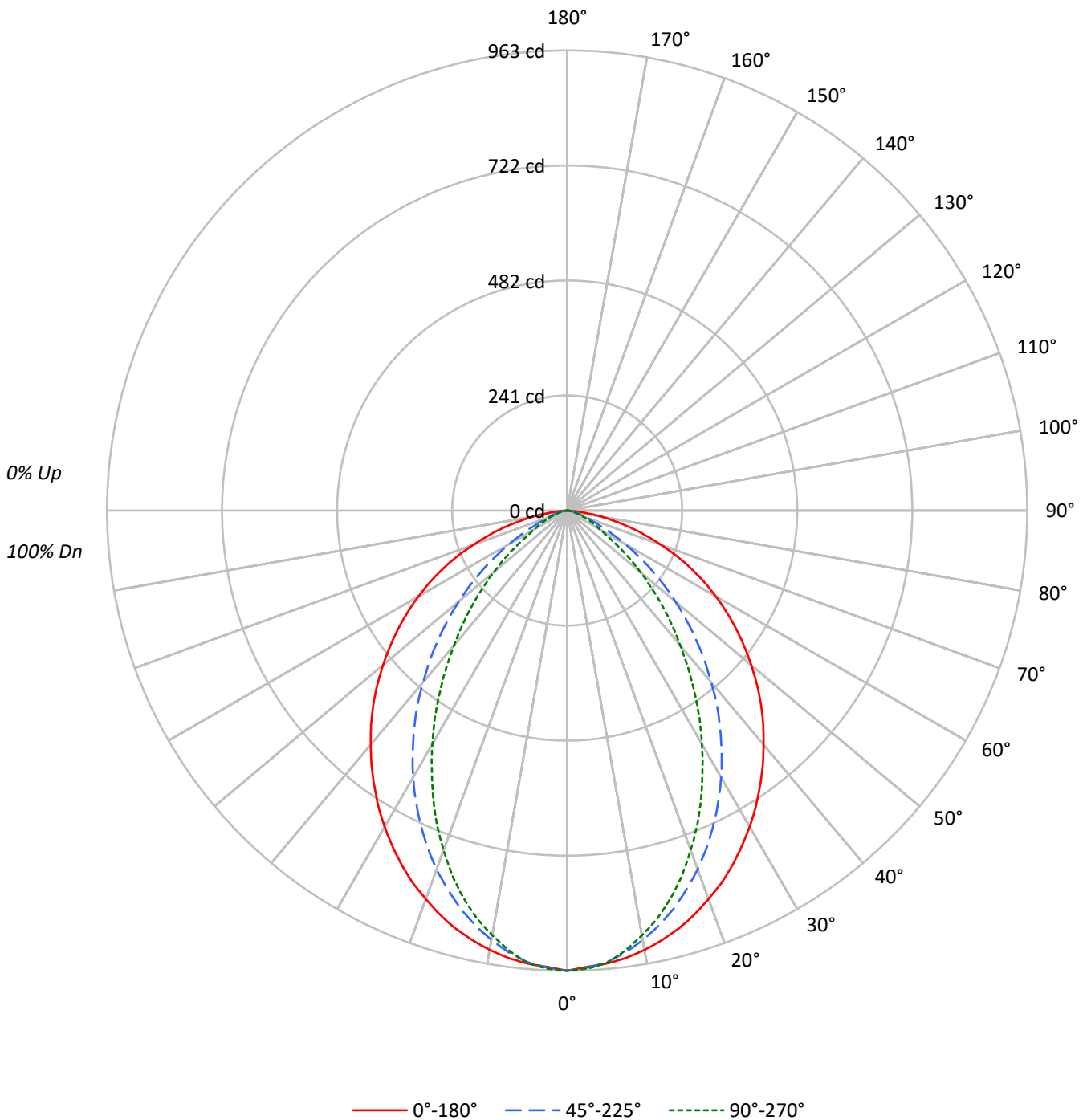
Lumens per Lamp: N/A
Luminaire Lumens: 1740.6 lumens
Efficiency: N/A
Efficacy: 65.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (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

TEST NUMBER: P1056488

CATALOG NUMBER: S125R3DR-S850D940-X4F0-XX-UDD-F-S

Luminous Intensity Polar Plot





TEST NUMBER: P1056488

CATALOG NUMBER: S125R3DR-S850D940-X4F0-XX-UDD-F-S

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6808	6808	6808
5°	6752	6733	6746
10°	6702	6548	6478
15°	6624	6311	6141
20°	6507	6011	5689
25°	6385	5655	5175
30°	6238	5263	4608
35°	6072	4817	4010
40°	5901	4328	3391
45°	5733	3816	2808
50°	5531	3247	2206
55°	5319	2638	1605
60°	5081	1967	1147
65°	4772	1298	895
70°	4314	903	626
75°	3750	585	486
80°	2939	436	399
85°	1517	365	292

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5733 cd/sqm



TEST NUMBER: P1056488

CATALOG NUMBER: S125R3DR-S850D940-X4F0-XX-UDD-F-S

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.7	5.2
10°-20°	243.9	14.0
20°-30°	337.2	19.4
30°-40°	357.3	20.5
40°-50°	311.8	17.9
50°-60°	221.8	12.7
60°-70°	123.3	7.1
70°-80°	47.4	2.7
80°-90°	8.2	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°	670.8	38.5
0°-40°	1028.1	59.1
0°-60°	1561.7	89.7
0°-90°	1740.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1740.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	963	963	963	963	963	
5°	952	959	949	946	951	90
15°	905	897	862	844	839	255
25°	819	791	725	680	663	377
35°	704	655	558	490	465	440
45°	573	505	382	305	281	442
55°	432	346	214	148	130	386
65°	285	187	78	57	54	282
75°	137	54	21	18	18	146
85°	19	5	4	4	4	28
90°	0	0	0	0	0	



TEST NUMBER: P1056488

CATALOG NUMBER: S125R3DR-S850D940-X4F0-XX-UDD-F-S

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	963.0	963.0	963.0	963.0	963.0
2.5°	955.9	965.7	957.7	958.6	959.5
5°	951.5	958.6	948.8	946.1	950.6
7.5°	944.3	949.7	932.7	926.5	929.2
10°	933.6	935.4	912.2	903.3	902.4
12.5°	920.2	917.6	889.0	874.8	873.9
15°	905.1	897.1	862.3	843.6	839.1
17.5°	886.4	873.9	831.1	807.0	799.9
20°	865.0	848.0	799.0	767.8	756.2
22.5°	843.6	820.4	763.3	724.1	711.6
25°	818.6	790.9	725.0	680.4	663.4
27.5°	791.8	758.8	685.7	634.0	613.5
30°	764.2	725.9	644.7	586.7	564.5
32.5°	734.8	691.1	601.9	538.6	515.4
35°	703.6	655.4	558.2	490.4	464.6
37.5°	672.3	618.8	515.4	443.2	416.4
40°	639.4	581.4	469.0	395.0	367.4
42.5°	607.3	543.1	425.3	349.6	324.6
45°	573.4	504.7	381.7	305.0	280.9
47.5°	538.6	464.6	338.0	263.1	239.0
50°	502.9	425.3	295.2	222.0	200.6
52.5°	467.3	386.1	255.0	182.8	164.1
55°	431.6	346.0	214.0	148.0	130.2
57.5°	395.9	306.7	175.7	115.9	99.9
60°	359.4	266.6	139.1	85.6	81.1
62.5°	322.8	227.4	107.9	70.4	66.9
65°	285.3	187.3	77.6	57.1	53.5
67.5°	247.9	150.7	56.2	43.7	41.0
70°	208.7	115.0	43.7	33.0	30.3
72.5°	171.2	82.9	31.2	24.1	23.2
75°	137.3	53.5	21.4	17.8	17.8
77.5°	103.4	32.1	15.2	13.4	13.4
80°	72.2	18.7	10.7	9.8	9.8
82.5°	43.7	9.8	7.1	6.2	6.2
85°	18.7	5.4	4.5	3.6	3.6
87.5°	3.6	1.8	1.8	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1056488
 CATALOG NUMBER: S125R3DR-S850D940-X4F0-XX-UDD-F-S

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	17.82	19.27	18.19	19.58	19.90	10.46	11.91	10.83	12.22	12.54
	3H	19.38	20.67	19.76	21.00	21.36	11.03	12.31	11.40	12.64	13.00
	4H	19.91	21.11	20.31	21.46	21.84	11.15	12.35	11.55	12.70	13.08
	6H	20.24	21.35	20.66	21.72	22.11	11.22	12.32	11.63	12.69	13.08
	8H	20.33	21.38	20.75	21.77	22.17	11.22	12.27	11.65	12.66	13.06
	12H	20.35	21.35	20.78	21.74	22.17	11.21	12.22	11.64	12.60	13.03
4H	2H	17.72	18.92	18.12	19.27	19.65	11.03	12.23	11.43	12.58	12.96
	3H	19.39	20.38	19.80	20.78	21.18	11.70	12.69	12.11	13.09	13.49
	4H	19.94	20.82	20.37	21.24	21.68	11.86	12.74	12.29	13.16	13.60
	6H	20.33	21.09	20.79	21.54	22.00	11.97	12.73	12.43	13.18	13.64
	8H	20.43	21.15	20.90	21.59	22.06	11.98	12.69	12.45	13.14	13.61
	12H	20.48	21.12	20.97	21.60	22.07	11.98	12.62	12.47	13.10	13.57
8H	4H	19.84	20.55	20.31	21.00	21.47	12.13	12.84	12.59	13.29	13.75
	6H	20.23	20.81	20.73	21.31	21.78	12.26	12.85	12.76	13.34	13.82
	8H	20.33	20.86	20.85	21.37	21.86	12.29	12.81	12.81	13.33	13.82
	12H	20.40	20.86	20.91	21.36	21.92	12.31	12.77	12.82	13.27	13.84
12H	4H	19.80	20.44	20.29	20.92	21.39	12.14	12.78	12.63	13.26	13.73
	6H	20.17	20.70	20.69	21.21	21.70	12.27	12.80	12.79	13.31	13.80
	8H	20.30	20.77	20.81	21.26	21.83	12.33	12.79	12.84	13.29	13.86