

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: P1056491

Luminaire Tested: S125R3DR-S850D950-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056491
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-S850D950-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

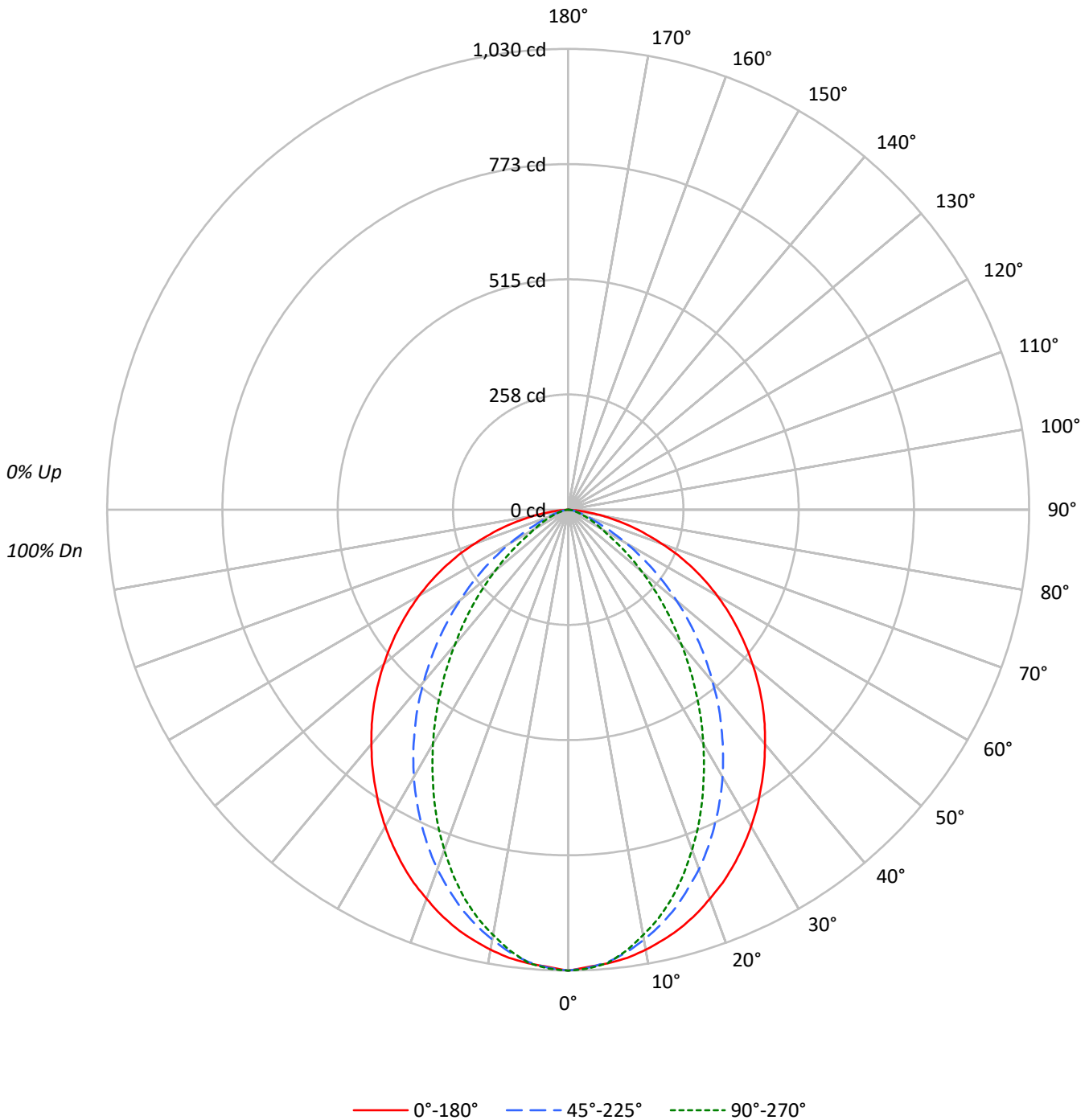
Lumens per Lamp: N/A
Luminaire Lumens: 1862.2 lumens
Efficiency: N/A
Efficacy: 70.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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: P1056491

CATALOG NUMBER: S125R3DR-S850D950-X4F0-XX-UDD-F-S

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	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°	7284	7284	7284
5°	7223	7203	7217
10°	7170	7005	6930
15°	7087	6752	6570
20°	6962	6431	6086
25°	6831	6050	5537
30°	6674	5630	4930
35°	6496	5154	4289
40°	6312	4631	3627
45°	6132	4082	3004
50°	5918	3473	2360
55°	5690	2822	1717
60°	5436	2104	1227
65°	5107	1388	957
70°	4613	965	670
75°	4012	625	522
80°	3147	464	427
85°	1622	389	308

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6132 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.0	5.2
10°-20°	260.9	14.0
20°-30°	360.8	19.4
30°-40°	382.2	20.5
40°-50°	333.6	17.9
50°-60°	237.3	12.7
60°-70°	131.9	7.1
70°-80°	50.7	2.7
80°-90°	8.8	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°	717.6	38.5
0°-40°	1099.9	59.1
0°-60°	1670.8	89.7
0°-90°	1862.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1862.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1030	1030	1030	1030	1030	
5°	1018	1026	1015	1012	1017	97
15°	968	960	922	902	898	273
25°	876	846	776	728	710	403
35°	753	701	597	525	497	471
45°	613	540	408	326	300	473
55°	462	370	229	158	139	413
65°	305	200	83	61	57	302
75°	147	57	23	19	19	156
85°	20	6	5	4	4	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1030.3	1030.3	1030.3	1030.3	1030.3
2.5°	1022.7	1033.2	1024.6	1025.5	1026.5
5°	1017.9	1025.5	1015.1	1012.2	1017.0
7.5°	1010.3	1016.0	997.9	991.2	994.1
10°	998.8	1000.7	975.9	966.4	965.4
12.5°	984.5	981.7	951.1	935.9	934.9
15°	968.3	959.7	922.5	902.5	897.7
17.5°	948.3	934.9	889.1	863.4	855.7
20°	925.4	907.3	854.8	821.4	809.0
22.5°	902.5	877.7	816.6	774.6	761.3
25°	875.8	846.2	775.6	727.9	709.8
27.5°	847.2	811.9	733.6	678.3	656.4
30°	817.6	776.6	689.7	627.7	603.9
32.5°	786.1	739.3	643.9	576.2	551.4
35°	752.7	701.2	597.2	524.7	497.0
37.5°	719.3	662.1	551.4	474.1	445.5
40°	684.0	622.0	501.8	422.6	393.0
42.5°	649.7	581.0	455.1	374.0	347.3
45°	613.4	540.0	408.3	326.3	300.5
47.5°	576.2	497.0	361.6	281.4	255.7
50°	538.1	455.1	315.8	237.5	214.6
52.5°	499.9	413.1	272.8	195.6	175.5
55°	461.7	370.2	229.0	158.4	139.3
57.5°	423.6	328.2	187.9	124.0	106.8
60°	384.5	285.2	148.8	91.6	86.8
62.5°	345.3	243.3	115.4	75.4	71.5
65°	305.3	200.3	83.0	61.1	57.2
67.5°	265.2	161.2	60.1	46.7	43.9
70°	223.2	123.1	46.7	35.3	32.4
72.5°	183.2	88.7	33.4	25.8	24.8
75°	146.9	57.2	22.9	19.1	19.1
77.5°	110.7	34.3	16.2	14.3	14.3
80°	77.3	20.0	11.4	10.5	10.5
82.5°	46.7	10.5	7.6	6.7	6.7
85°	20.0	5.7	4.8	3.8	3.8
87.5°	3.8	1.9	1.9	1.9	1.9
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	18.06	19.51	18.43	19.82	20.13	10.70	12.14	11.06	12.45	12.77
	3H	19.62	20.91	20.00	21.24	21.60	11.26	12.55	11.64	12.88	13.24
	4H	20.14	21.34	20.54	21.69	22.07	11.38	12.59	11.79	12.94	13.32
	6H	20.48	21.59	20.89	21.95	22.35	11.45	12.56	11.86	12.93	13.32
	8H	20.56	21.61	20.99	22.00	22.40	11.45	12.51	11.88	12.90	13.30
	12H	20.58	21.59	21.02	21.97	22.40	11.45	12.45	11.88	12.83	13.26
4H	2H	17.96	19.16	18.36	19.51	19.89	11.26	12.46	11.66	12.81	13.19
	3H	19.62	20.61	20.04	21.01	21.41	11.93	12.92	12.35	13.32	13.73
	4H	20.17	21.06	20.61	21.47	21.91	12.09	12.98	12.53	13.39	13.83
	6H	20.57	21.33	21.03	21.77	22.24	12.20	12.97	12.66	13.41	13.88
	8H	20.67	21.38	21.14	21.83	22.30	12.22	12.93	12.68	13.37	13.84
	12H	20.72	21.35	21.20	21.83	22.30	12.22	12.85	12.70	13.33	13.80
8H	4H	20.08	20.79	20.54	21.23	21.70	12.36	13.07	12.83	13.52	13.99
	6H	20.46	21.05	20.96	21.54	22.02	12.50	13.08	12.99	13.57	14.05
	8H	20.57	21.09	21.09	21.61	22.10	12.52	13.05	13.04	13.56	14.05
	12H	20.63	21.10	21.15	21.59	22.16	12.55	13.01	13.06	13.50	14.07
12H	4H	20.04	20.67	20.52	21.15	21.63	12.38	13.01	12.86	13.49	13.96
	6H	20.41	20.93	20.93	21.45	21.94	12.51	13.03	13.02	13.54	14.03
	8H	20.54	21.00	21.05	21.49	22.06	12.57	13.03	13.08	13.52	14.09