

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056614

Luminaire Tested: S125R3DR-H850D927-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056614
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-H850D927-X4F0-XX-UDD-FLL-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

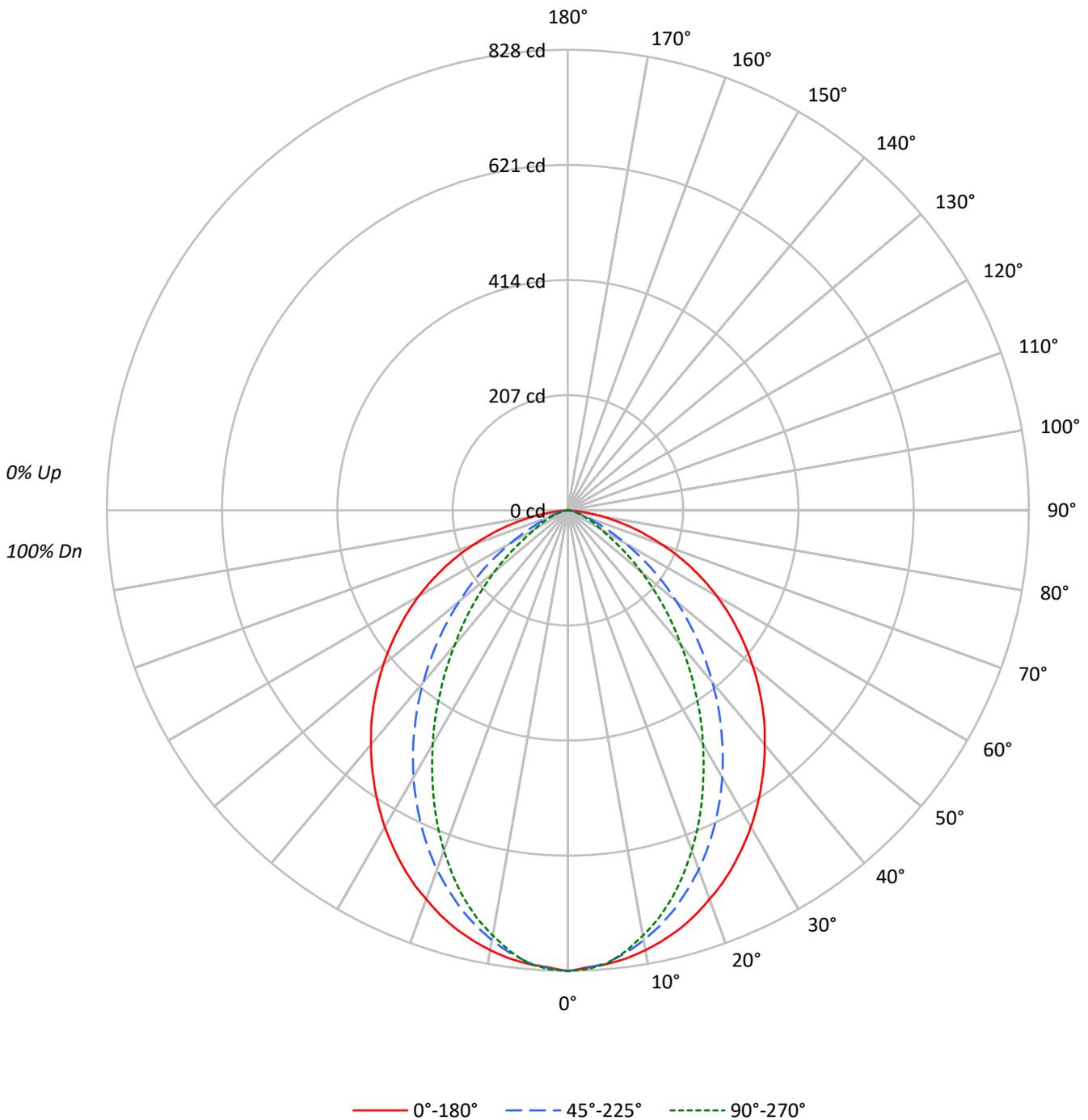
Lumens per Lamp: N/A
Luminaire Lumens: 1497.4 lumens
Efficiency: N/A
Efficacy: 62.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 23.8
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	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°	5857	5857	5857
5°	5808	5792	5803
10°	5766	5634	5573
15°	5698	5429	5283
20°	5598	5171	4894
25°	5493	4865	4452
30°	5366	4527	3964
35°	5224	4144	3449
40°	5076	3724	2917
45°	4932	3282	2415
50°	4759	2792	1898
55°	4576	2269	1380
60°	4372	1692	987
65°	4107	1116	769
70°	3710	777	539
75°	3226	503	418
80°	2528	375	342
85°	1306	308	251

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4932 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.2	5.2
10°-20°	209.8	14.0
20°-30°	290.1	19.4
30°-40°	307.3	20.5
40°-50°	268.3	17.9
50°-60°	190.8	12.7
60°-70°	106.1	7.1
70°-80°	40.8	2.7
80°-90°	7.1	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°	577.1	38.5
0°-40°	884.4	59.1
0°-60°	1343.5	89.7
0°-90°	1497.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1497.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	818	825	816	814	818	78
15°	779	772	742	726	722	219
25°	704	680	624	585	571	324
35°	605	564	480	422	400	379
45°	493	434	328	262	242	380
55°	371	298	184	127	112	332
65°	246	161	67	49	46	243
75°	118	46	18	15	15	125
85°	16	5	4	3	3	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	828.5	828.5	828.5	828.5	828.5
2.5°	822.4	830.8	823.9	824.7	825.4
5°	818.5	824.7	816.2	813.9	817.8
7.5°	812.4	817.0	802.4	797.0	799.3
10°	803.2	804.7	784.8	777.1	776.3
12.5°	791.7	789.4	764.8	752.5	751.8
15°	778.6	771.7	741.8	725.7	721.9
17.5°	762.5	751.8	715.0	694.2	688.1
20°	744.1	729.5	687.3	660.5	650.5
22.5°	725.7	705.8	656.7	622.9	612.2
25°	704.2	680.4	623.7	585.3	570.7
27.5°	681.2	652.8	589.9	545.4	527.8
30°	657.4	624.4	554.6	504.8	485.6
32.5°	632.1	594.5	517.8	463.3	443.4
35°	605.3	563.8	480.2	421.9	399.7
37.5°	578.4	532.4	443.4	381.3	358.2
40°	550.0	500.2	403.5	339.8	316.1
42.5°	522.4	467.2	365.9	300.7	279.2
45°	493.3	434.2	328.3	262.4	241.6
47.5°	463.3	399.7	290.7	226.3	205.6
50°	432.7	365.9	253.9	191.0	172.6
52.5°	402.0	332.2	219.4	157.3	141.2
55°	371.3	297.6	184.1	127.3	112.0
57.5°	340.6	263.9	151.1	99.7	85.9
60°	309.2	229.4	119.7	73.6	69.8
62.5°	277.7	195.6	92.8	60.6	57.5
65°	245.5	161.1	66.7	49.1	46.0
67.5°	213.3	129.6	48.3	37.6	35.3
70°	179.5	99.0	37.6	28.4	26.1
72.5°	147.3	71.3	26.8	20.7	19.9
75°	118.1	46.0	18.4	15.3	15.3
77.5°	89.0	27.6	13.0	11.5	11.5
80°	62.1	16.1	9.2	8.4	8.4
82.5°	37.6	8.4	6.1	5.4	5.4
85°	16.1	4.6	3.8	3.1	3.1
87.5°	3.1	1.5	1.5	1.5	1.5
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	17.30	18.75	17.67	19.06	19.38	9.94	11.38	10.30	11.70	12.01
	3H	18.86	20.15	19.24	20.48	20.84	10.50	11.79	10.88	12.12	12.48
	4H	19.38	20.59	19.78	20.94	21.32	10.63	11.83	11.03	12.18	12.56
	6H	19.72	20.83	20.13	21.20	21.59	10.69	11.80	11.11	12.17	12.56
	8H	19.80	20.85	20.23	21.24	21.65	10.70	11.75	11.12	12.14	12.54
	12H	19.83	20.83	20.26	21.21	21.64	10.69	11.69	11.12	12.08	12.50
4H	2H	17.20	18.40	17.60	18.75	19.13	10.50	11.71	10.90	12.06	12.44
	3H	18.87	19.85	19.28	20.25	20.66	11.18	12.16	11.59	12.57	12.97
	4H	19.41	20.30	19.85	20.72	21.16	11.33	12.22	11.77	12.63	13.07
	6H	19.81	20.57	20.27	21.02	21.48	11.44	12.21	11.90	12.65	13.12
	8H	19.91	20.63	20.38	21.07	21.54	11.46	12.17	11.92	12.61	13.08
	12H	19.96	20.59	20.44	21.07	21.55	11.46	12.09	11.94	12.57	13.05
8H	4H	19.32	20.03	19.78	20.48	20.95	11.60	12.32	12.07	12.76	13.23
	6H	19.70	20.29	20.20	20.78	21.26	11.74	12.32	12.24	12.81	13.29
	8H	19.81	20.34	20.33	20.85	21.34	11.76	12.29	12.28	12.80	13.29
	12H	19.88	20.34	20.39	20.83	21.40	11.79	12.25	12.30	12.74	13.31
12H	4H	19.28	19.92	19.77	20.40	20.87	11.62	12.25	12.10	12.73	13.20
	6H	19.65	20.18	20.17	20.69	21.18	11.75	12.27	12.26	12.79	13.28
	8H	19.78	20.24	20.29	20.74	21.31	11.81	12.27	12.32	12.76	13.33