

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: P1056590

Luminaire Tested: S125R3DR-H610D930-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056590
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-H610D930-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

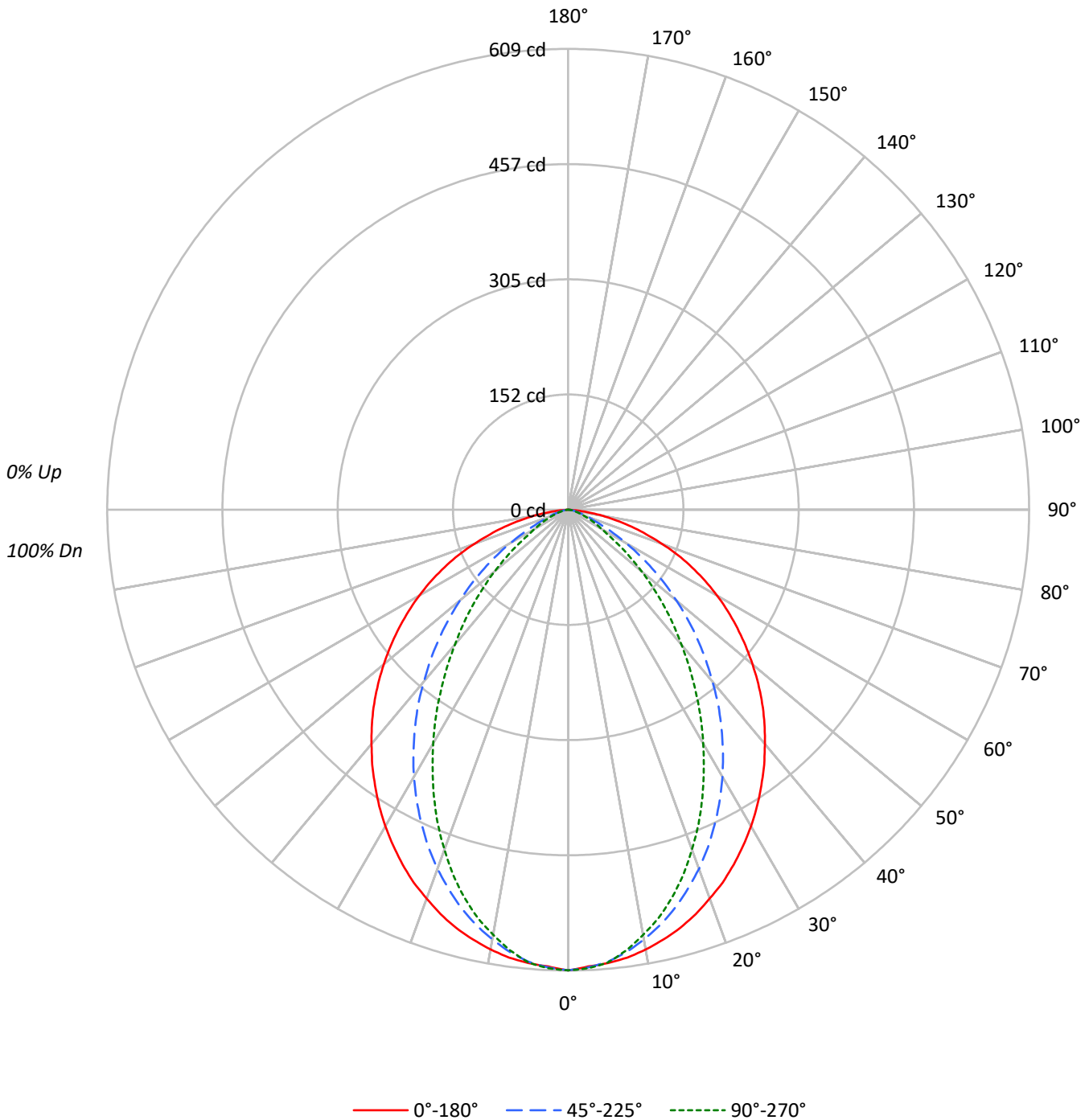
Lumens per Lamp: N/A
Luminaire Lumens: 1100.4 lumens
Efficiency: N/A
Efficacy: 63.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 17.3
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°	4304	4304	4304
5°	4268	4256	4264
10°	4237	4140	4095
15°	4188	3989	3883
20°	4114	3800	3597
25°	4037	3575	3271
30°	3944	3327	2913
35°	3839	3046	2535
40°	3730	2736	2144
45°	3624	2412	1776
50°	3496	2052	1395
55°	3362	1668	1014
60°	3212	1243	725
65°	3018	820	565
70°	2726	570	397
75°	2371	369	309
80°	1860	277	252
85°	957	227	187

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3624 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	5.2
10°-20°	154.2	14.0
20°-30°	213.2	19.4
30°-40°	225.9	20.5
40°-50°	197.1	17.9
50°-60°	140.2	12.7
60°-70°	78.0	7.1
70°-80°	30.0	2.7
80°-90°	5.2	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°	424.1	38.5
0°-40°	649.9	59.1
0°-60°	987.3	89.7
0°-90°	1100.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1100.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	609	609	609	609	609	
5°	602	606	600	598	601	57
15°	572	567	545	533	530	161
25°	518	500	458	430	419	238
35°	445	414	353	310	294	278
45°	362	319	241	193	178	279
55°	273	219	135	94	82	244
65°	180	118	49	36	34	178
75°	87	34	14	11	11	92
85°	12	3	3	2	2	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	608.8	608.8	608.8	608.8	608.8
2.5°	604.3	610.5	605.5	606.0	606.6
5°	601.5	606.0	599.8	598.1	600.9
7.5°	597.0	600.4	589.7	585.7	587.4
10°	590.2	591.4	576.7	571.1	570.5
12.5°	581.8	580.1	562.0	553.0	552.5
15°	572.2	567.1	545.1	533.3	530.5
17.5°	560.4	552.5	525.4	510.2	505.7
20°	546.8	536.1	505.1	485.4	478.1
22.5°	533.3	518.6	482.6	457.8	449.9
25°	517.5	500.0	458.3	430.1	419.4
27.5°	500.6	479.7	433.5	400.8	387.9
30°	483.1	458.9	407.6	370.9	356.8
32.5°	464.5	436.9	380.5	340.5	325.8
35°	444.8	414.3	352.9	310.1	293.7
37.5°	425.1	391.2	325.8	280.2	263.3
40°	404.2	367.6	296.5	249.7	232.3
42.5°	383.9	343.3	268.9	221.0	205.2
45°	362.5	319.1	241.3	192.8	177.6
47.5°	340.5	293.7	213.7	166.3	151.1
50°	317.9	268.9	186.6	140.4	126.8
52.5°	295.4	244.1	161.2	115.6	103.7
55°	272.8	218.7	135.3	93.6	82.3
57.5°	250.3	193.9	111.1	73.3	63.1
60°	227.2	168.6	87.9	54.1	51.3
62.5°	204.1	143.8	68.2	44.5	42.3
65°	180.4	118.4	49.0	36.1	33.8
67.5°	156.7	95.3	35.5	27.6	25.9
70°	131.9	72.7	27.6	20.9	19.2
72.5°	108.2	52.4	19.7	15.2	14.7
75°	86.8	33.8	13.5	11.3	11.3
77.5°	65.4	20.3	9.6	8.5	8.5
80°	45.7	11.8	6.8	6.2	6.2
82.5°	27.6	6.2	4.5	3.9	3.9
85°	11.8	3.4	2.8	2.3	2.3
87.5°	2.3	1.1	1.1	1.1	1.1
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	16.23	17.68	16.60	17.99	18.31	8.87	10.32	9.24	10.63	10.94
	3H	17.79	19.08	18.17	19.41	19.77	9.43	10.72	9.81	11.05	11.41
	4H	18.31	19.51	18.71	19.86	20.24	9.56	10.76	9.96	11.11	11.49
	6H	18.65	19.76	19.06	20.13	20.52	9.63	10.73	10.04	11.10	11.49
	8H	18.73	19.78	19.16	20.17	20.58	9.63	10.68	10.06	11.07	11.47
	12H	18.76	19.76	19.19	20.14	20.57	9.62	10.63	10.05	11.01	11.44
4H	2H	16.13	17.33	16.53	17.68	18.06	9.43	10.64	9.84	10.99	11.37
	3H	17.79	18.78	18.21	19.18	19.59	10.11	11.09	10.52	11.50	11.90
	4H	18.34	19.23	18.78	19.64	20.08	10.27	11.15	10.70	11.57	12.01
	6H	18.74	19.50	19.20	19.95	20.41	10.38	11.14	10.84	11.59	12.05
	8H	18.84	19.55	19.31	20.00	20.47	10.39	11.10	10.86	11.55	12.02
	12H	18.89	19.52	19.37	20.00	20.47	10.39	11.02	10.88	11.51	11.98
8H	4H	18.25	18.96	18.71	19.41	19.87	10.53	11.25	11.00	11.69	12.16
	6H	18.63	19.22	19.13	19.71	20.19	10.67	11.25	11.17	11.75	12.23
	8H	18.74	19.27	19.26	19.78	20.27	10.70	11.22	11.21	11.73	12.22
	12H	18.80	19.27	19.32	19.76	20.33	10.72	11.18	11.23	11.68	12.24
12H	4H	18.21	18.84	18.69	19.32	19.80	10.55	11.18	11.03	11.66	12.14
	6H	18.58	19.11	19.10	19.62	20.11	10.68	11.21	11.20	11.72	12.21
	8H	18.71	19.17	19.22	19.67	20.23	10.74	11.20	11.25	11.70	12.26