

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: P1056588

Luminaire Tested: S125R3DR-H610D927-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056588  
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-H610D927-X4F0-XX-UDD-F-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

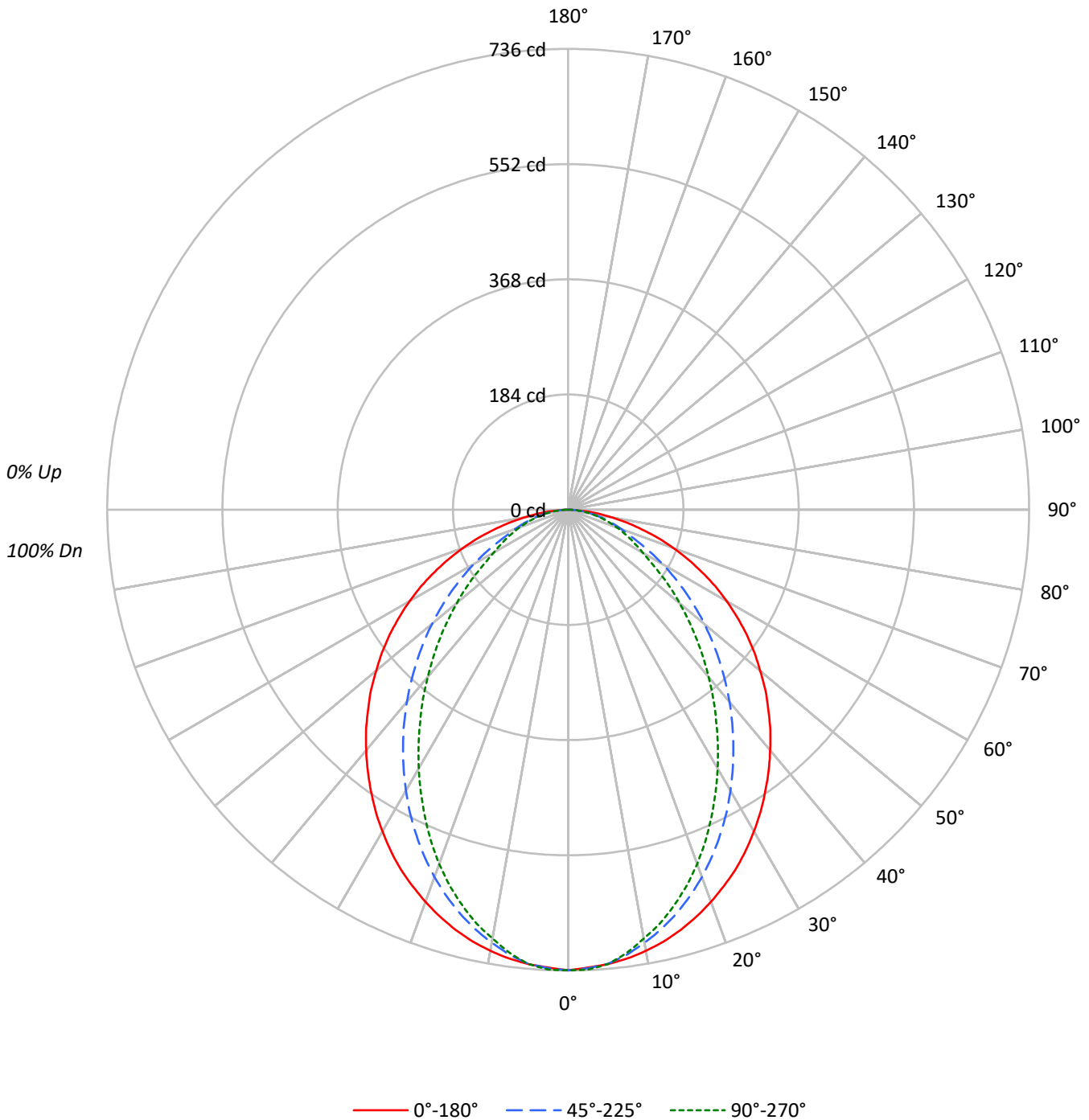
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1559.2 lumens  
Efficiency: N/A  
Efficacy: 90.1 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): 17.3  
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°	5200	5200	5200
5°	5170	5166	5170
10°	5135	5041	4993
15°	5084	4887	4786
20°	5015	4697	4529
25°	4939	4473	4221
30°	4842	4230	3895
35°	4736	3966	3555
40°	4630	3695	3220
45°	4518	3412	2886
50°	4398	3120	2554
55°	4287	2801	2221
60°	4136	2463	1951
65°	3931	2089	1815
70°	3692	1869	1699
75°	3335	1721	1601
80°	2899	1559	1494
85°	2263	1379	1379

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4518 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.8	4.4
10°-20°	189.0	12.1
20°-30°	267.0	17.1
30°-40°	293.9	18.8
40°-50°	274.1	17.6
50°-60°	218.9	14.0
60°-70°	147.3	9.4
70°-80°	78.4	5.0
80°-90°	21.8	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°	524.8	33.7
0°-40°	818.7	52.5
0°-60°	1311.6	84.1
0°-90°	1559.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1559.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	736	736	736	736	736	
5°	728	734	728	726	728	69
15°	695	691	668	656	654	196
25°	633	614	574	548	541	291
35°	549	516	460	423	412	343
45°	452	409	341	300	289	349
55°	348	295	227	191	180	311
65°	235	184	125	111	108	233
75°	122	81	63	59	59	130
85°	28	19	17	18	17	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	735.6	735.6	735.6	735.6	735.6
2.5°	731.8	737.8	732.9	734.0	735.1
5°	728.5	734.5	728.0	725.8	728.5
7.5°	723.0	728.0	717.0	712.1	714.3
10°	715.4	718.7	702.2	695.6	695.6
12.5°	706.1	706.1	686.3	677.0	677.0
15°	694.6	690.7	667.7	656.2	654.0
17.5°	681.4	674.3	646.9	632.1	629.4
20°	666.6	655.1	624.4	605.3	602.0
22.5°	650.2	635.4	599.8	576.2	572.4
25°	633.2	614.0	573.5	548.3	541.2
27.5°	614.0	591.0	546.7	518.2	509.4
30°	593.2	566.9	518.2	486.4	477.1
32.5°	571.9	542.3	489.1	455.2	444.8
35°	548.8	516.5	459.6	423.4	411.9
37.5°	525.8	490.8	430.5	392.7	380.7
40°	501.7	463.4	400.4	361.5	348.9
42.5°	477.6	436.6	370.8	331.4	318.2
45°	451.9	409.2	341.3	299.6	288.7
47.5°	427.2	381.2	312.2	271.7	259.6
50°	399.9	352.2	283.7	243.2	232.2
52.5°	374.7	323.7	255.3	217.5	206.0
55°	347.8	295.2	227.3	191.2	180.2
57.5°	319.9	266.8	200.5	166.5	156.1
60°	292.5	238.3	174.2	143.0	138.0
62.5°	264.6	211.4	149.5	125.4	122.1
65°	235.0	183.5	124.9	110.6	108.5
67.5°	207.1	156.7	105.2	97.0	94.8
70°	178.6	129.8	90.4	83.3	82.2
72.5°	150.6	104.1	76.1	71.2	70.1
75°	122.1	81.1	63.0	59.2	58.6
77.5°	95.9	60.8	49.8	48.2	47.1
80°	71.2	45.5	38.3	37.2	36.7
82.5°	48.8	31.2	27.4	27.4	26.3
85°	27.9	19.2	17.0	17.5	17.0
87.5°	10.4	8.2	7.7	8.2	8.2
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	17.02	18.56	17.38	18.87	19.19	13.40	14.94	13.76	15.25	15.57
	3H	18.80	20.19	19.18	20.51	20.88	14.88	16.26	15.25	16.59	16.95
	4H	19.46	20.75	19.86	21.10	21.48	15.47	16.76	15.87	17.11	17.49
	6H	19.93	21.13	20.34	21.50	21.89	15.93	17.13	16.34	17.50	17.89
	8H	20.09	21.23	20.51	21.62	22.02	16.09	17.23	16.51	17.62	18.02
	12H	20.18	21.28	20.61	21.66	22.09	16.20	17.30	16.63	17.68	18.11
4H	2H	17.15	18.45	17.55	18.80	19.18	14.08	15.37	14.47	15.72	16.10
	3H	19.12	20.20	19.53	20.60	21.00	15.75	16.83	16.16	17.23	17.63
	4H	19.87	20.84	20.30	21.26	21.69	16.46	17.43	16.89	17.85	18.28
	6H	20.46	21.31	20.92	21.75	22.21	17.04	17.89	17.50	18.33	18.79
	8H	20.67	21.46	21.13	21.90	22.37	17.25	18.04	17.71	18.49	18.95
	12H	20.82	21.52	21.30	22.00	22.47	17.41	18.12	17.89	18.60	19.07
8H	4H	19.93	20.72	20.39	21.17	21.63	16.82	17.61	17.28	18.06	18.52
	6H	20.59	21.25	21.09	21.74	22.21	17.52	18.18	18.02	18.67	19.15
	8H	20.84	21.43	21.36	21.94	22.43	17.81	18.40	18.32	18.90	19.39
	12H	21.05	21.57	21.56	22.07	22.63	18.05	18.57	18.56	19.06	19.62
12H	4H	19.92	20.63	20.41	21.11	21.58	16.87	17.58	17.35	18.06	18.53
	6H	20.58	21.17	21.10	21.68	22.17	17.59	18.18	18.11	18.69	19.18
	8H	20.88	21.40	21.39	21.89	22.46	17.94	18.46	18.45	18.95	19.51