

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: P1056397

Luminaire Tested: S125R3DR-S1270D927-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056397  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-S1270D927-X4F0-XX-UDD-F-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

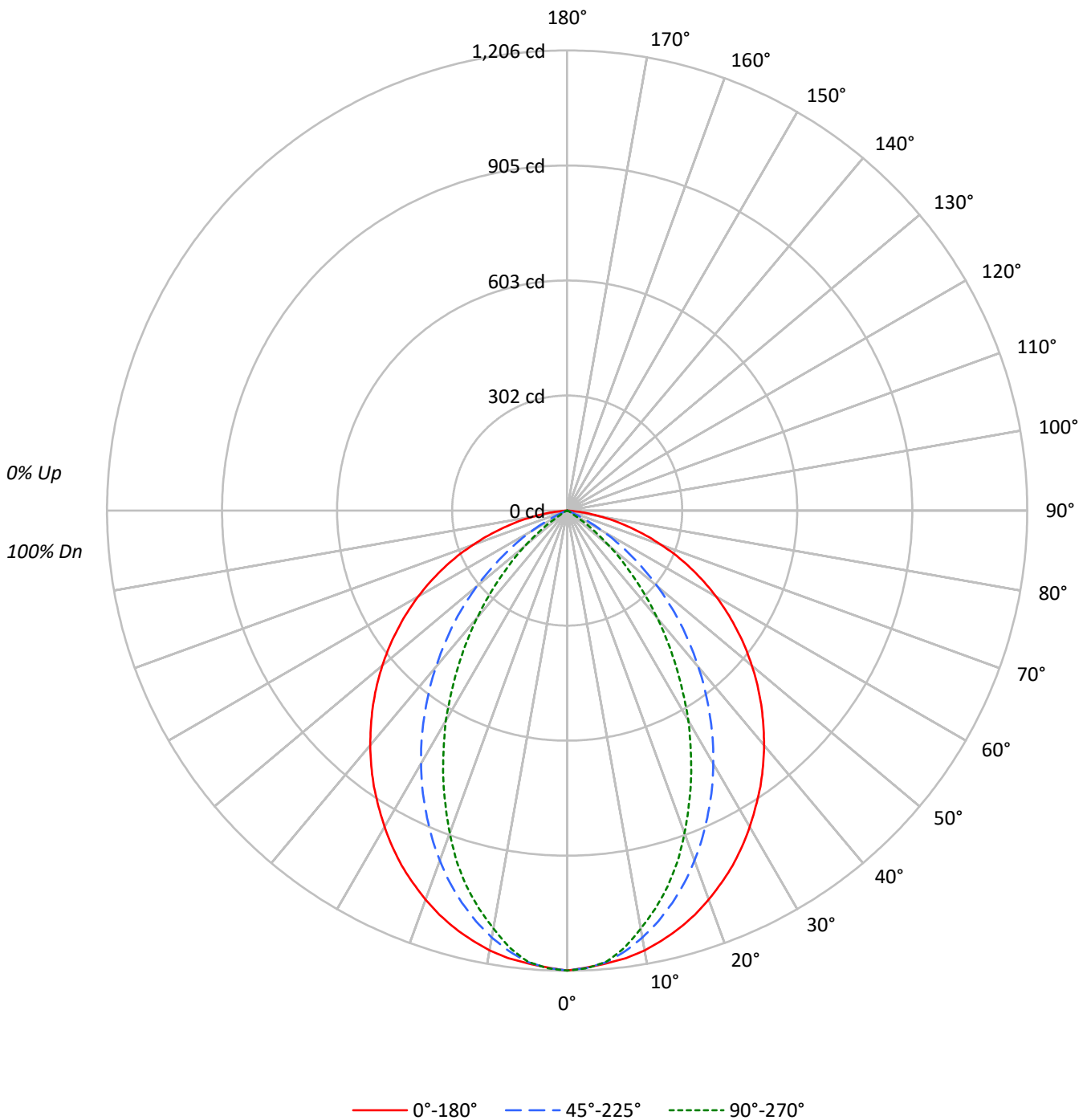
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1953.9 lumens  
Efficiency: N/A  
Efficacy: 46.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07  
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.9  
Input Voltage (V): 120  
Input Current (Ain): 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	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	8522	8522	8522
5°	8452	8428	8419
10°	8404	8156	7985
15°	8298	7791	7459
20°	8161	7343	6768
25°	8005	6821	6001
30°	7812	6251	5188
35°	7619	5619	4289
40°	7409	4939	3396
45°	7190	4216	2460
50°	6951	3403	1590
55°	6685	2488	706
60°	6368	1537	202
65°	5975	560	120
70°	5407	198	50
75°	4698	66	33
80°	3599	49	0
85°	1647	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7190 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.0	5.7
10°-20°	300.6	15.4
20°-30°	406.7	20.8
30°-40°	417.8	21.4
40°-50°	346.2	17.7
50°-60°	222.2	11.4
60°-70°	107.3	5.5
70°-80°	36.3	1.9
80°-90°	4.7	0.2
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°	819.4	41.9
0°-40°	1237.2	63.3
0°-60°	1805.6	92.4
0°-90°	1953.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1953.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1206	1206	1206	1206	1206	
5°	1191	1201	1188	1180	1186	113
15°	1134	1120	1064	1028	1019	319
25°	1026	976	874	796	769	472
35°	883	798	651	538	497	552
45°	719	601	422	292	246	555
55°	542	398	202	88	57	485
65°	357	197	34	10	7	353
75°	172	37	2	1	1	182
85°	20	0	0	0	0	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1205.5	1205.5	1205.5	1205.5	1205.5
2.5°	1198.3	1207.9	1199.5	1198.3	1200.7
5°	1191.1	1200.7	1187.6	1180.4	1186.4
7.5°	1182.8	1187.6	1164.9	1152.9	1155.3
10°	1170.8	1169.6	1136.2	1115.9	1112.3
12.5°	1152.9	1146.9	1102.7	1074.1	1068.1
15°	1133.8	1119.5	1064.5	1027.5	1019.1
17.5°	1111.1	1088.4	1022.7	974.9	963.0
20°	1084.8	1053.8	976.1	917.6	899.6
22.5°	1056.1	1016.7	927.1	857.8	833.9
25°	1026.3	976.1	874.5	795.7	769.4
27.5°	992.8	934.3	822.0	732.4	700.1
30°	957.0	890.1	765.8	667.9	635.6
32.5°	919.9	845.9	709.7	603.3	563.9
35°	882.9	798.1	651.1	537.6	497.0
37.5°	843.5	750.3	593.8	475.5	431.3
40°	802.9	701.3	535.2	411.0	368.0
42.5°	761.0	651.1	476.7	350.1	305.9
45°	719.2	601.0	421.7	291.5	246.1
47.5°	676.2	549.6	364.4	234.2	194.7
50°	632.0	499.4	309.4	182.8	144.6
52.5°	587.8	448.0	253.3	132.6	98.0
55°	542.4	397.8	201.9	88.4	57.3
57.5°	497.0	346.5	154.1	49.0	21.5
60°	450.4	297.5	108.7	16.7	14.3
62.5°	405.0	244.9	68.1	13.1	10.8
65°	357.2	197.1	33.5	9.6	7.2
67.5°	310.6	151.7	14.3	6.0	3.6
70°	261.6	109.9	9.6	3.6	2.4
72.5°	216.2	70.5	6.0	2.4	1.2
75°	172.0	37.0	2.4	1.2	1.2
77.5°	129.0	15.5	1.2	1.2	1.2
80°	88.4	7.2	1.2	1.2	0.0
82.5°	52.6	2.4	1.2	1.2	0.0
85°	20.3	0.0	0.0	0.0	0.0
87.5°	1.2	0.0	0.0	0.0	0.0
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	18.51	19.90	18.88	20.21	20.53	3.38	4.76	3.74	5.08	5.39
	3H	20.06	21.29	20.44	21.62	21.98	3.30	4.53	3.68	4.86	5.22
	4H	20.58	21.73	20.99	22.08	22.46	3.24	4.38	3.64	4.73	5.11
	6H	20.92	21.98	21.34	22.34	22.74	3.17	4.22	3.58	4.59	4.98
	8H	21.01	22.00	21.43	22.39	22.80	3.12	4.12	3.55	4.51	4.92
	12H	21.02	21.98	21.45	22.36	22.79	3.08	4.04	3.52	4.42	4.85
4H	2H	18.32	19.46	18.72	19.81	20.19	4.24	5.39	4.65	5.74	6.12
	3H	19.93	20.86	20.34	21.27	21.67	4.19	5.13	4.61	5.53	5.93
	4H	20.45	21.29	20.89	21.70	22.15	4.12	4.95	4.55	5.37	5.81
	6H	20.83	21.55	21.29	21.99	22.46	4.05	4.77	4.51	5.22	5.68
	8H	20.93	21.60	21.39	22.04	22.51	4.00	4.67	4.47	5.12	5.59
	12H	20.96	21.55	21.45	22.04	22.51	3.96	4.55	4.44	5.03	5.51
8H	4H	20.32	21.00	20.79	21.44	21.91	5.14	5.81	5.61	6.25	6.73
	6H	20.68	21.23	21.18	21.72	22.20	5.05	5.60	5.56	6.10	6.58
	8H	20.77	21.27	21.29	21.78	22.27	5.00	5.49	5.52	6.01	6.50
	12H	20.82	21.25	21.33	21.75	22.32	4.96	5.40	5.48	5.89	6.46
12H	4H	20.28	20.88	20.77	21.36	21.83	5.22	5.81	5.70	6.29	6.76
	6H	20.62	21.11	21.14	21.63	22.12	5.12	5.61	5.64	6.13	6.62
	8H	20.73	21.17	21.25	21.66	22.23	5.09	5.52	5.60	6.01	6.58