

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: P1056542

Luminaire Tested: S125R3DR-H1270D940-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056542  
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-H1270D940-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

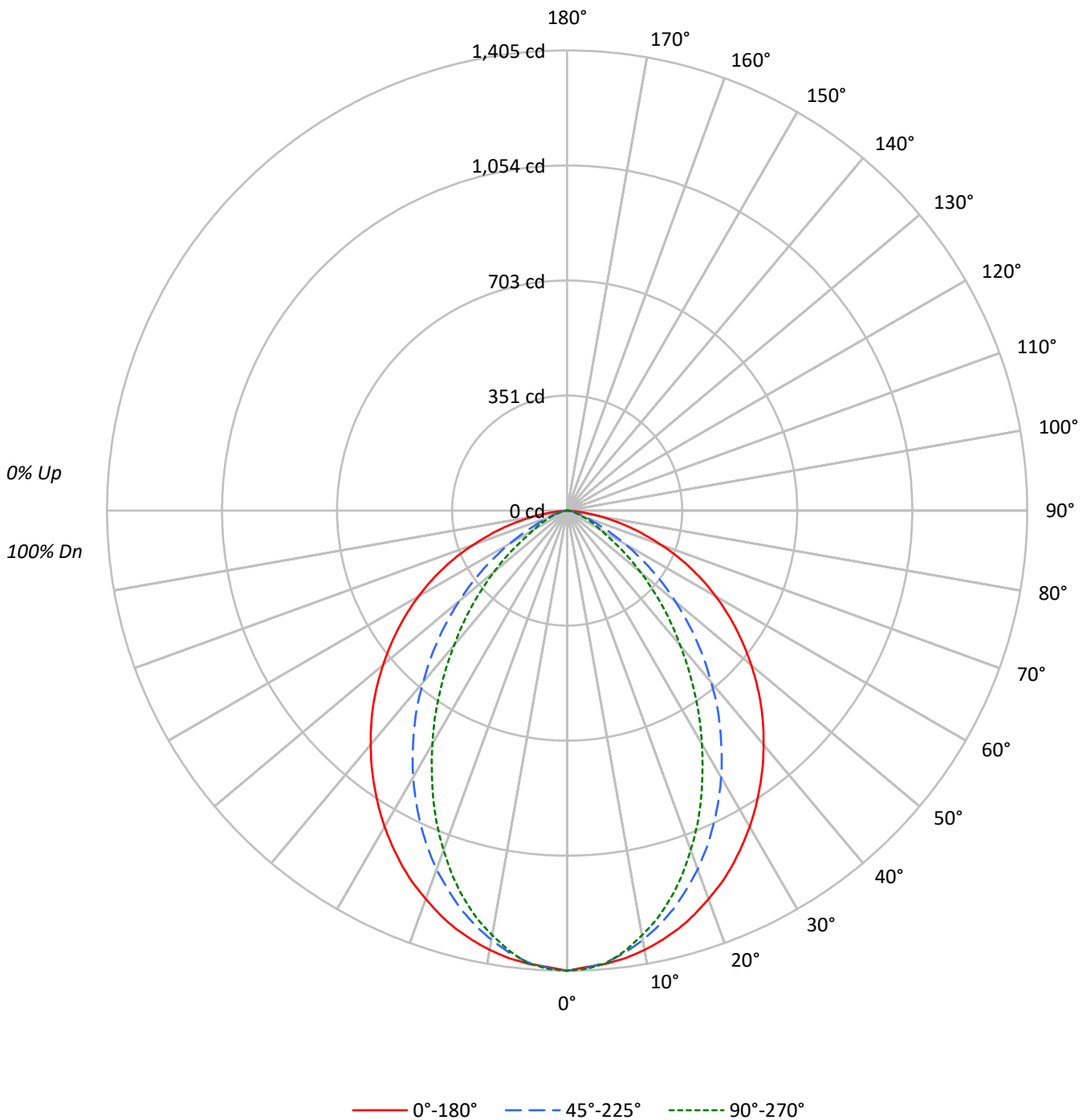
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2539.4 lumens  
Efficiency: N/A  
Efficacy: 69.4 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): 36.6  
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	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				
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°	9932	9932	9932
5°	9850	9823	9841
10°	9777	9553	9450
15°	9664	9207	8959
20°	9493	8769	8299
25°	9315	8249	7550
30°	9101	7678	6722
35°	8858	7028	5849
40°	8607	6315	4946
45°	8363	5567	4097
50°	8069	4736	3219
55°	7760	3848	2341
60°	7413	2869	1674
65°	6964	1894	1306
70°	6292	1317	914
75°	5471	852	710
80°	4291	635	582
85°	2214	527	422

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8363 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.9	5.2
10°-20°	355.8	14.0
20°-30°	492.0	19.4
30°-40°	521.2	20.5
40°-50°	454.9	17.9
50°-60°	323.6	12.7
60°-70°	179.9	7.1
70°-80°	69.2	2.7
80°-90°	12.0	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°	978.6	38.5
0°-40°	1499.8	59.1
0°-60°	2278.3	89.7
0°-90°	2539.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2539.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1405	1405	1405	1405	1405	
5°	1388	1398	1384	1380	1387	132
15°	1320	1309	1258	1231	1224	372
25°	1194	1154	1058	993	968	550
35°	1026	956	814	716	678	642
45°	836	736	557	445	410	645
55°	630	505	312	216	190	563
65°	416	273	113	83	78	411
75°	200	78	31	26	26	212
85°	27	8	6	5	5	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1405.0	1405.0	1405.0	1405.0	1405.0
2.5°	1394.6	1408.9	1397.2	1398.5	1399.8
5°	1388.1	1398.5	1384.2	1380.3	1386.8
7.5°	1377.7	1385.5	1360.7	1351.6	1355.5
10°	1362.0	1364.6	1330.8	1317.8	1316.5
12.5°	1342.5	1338.6	1297.0	1276.2	1274.9
15°	1320.4	1308.7	1258.0	1230.7	1224.1
17.5°	1293.1	1274.9	1212.4	1177.3	1166.9
20°	1261.9	1237.2	1165.6	1120.1	1103.2
22.5°	1230.7	1196.8	1113.6	1056.3	1038.1
25°	1194.2	1153.9	1057.6	992.6	967.9
27.5°	1155.2	1107.1	1000.4	924.9	895.0
30°	1114.9	1058.9	940.6	856.0	823.5
32.5°	1071.9	1008.2	878.1	785.7	751.9
35°	1026.4	956.2	814.4	715.5	677.8
37.5°	980.9	902.8	751.9	646.5	607.5
40°	932.7	848.2	684.3	576.3	536.0
42.5°	885.9	792.2	620.5	510.0	473.5
45°	836.5	736.3	556.8	444.9	409.8
47.5°	785.7	677.8	493.0	383.8	348.6
50°	733.7	620.5	430.6	323.9	292.7
52.5°	681.7	563.3	372.1	266.7	239.4
55°	629.6	504.7	312.2	215.9	189.9
57.5°	577.6	447.5	256.3	169.1	145.7
60°	524.3	389.0	202.9	124.9	118.4
62.5°	470.9	331.7	157.4	102.8	97.6
65°	416.3	273.2	113.2	83.3	78.1
67.5°	361.7	219.9	82.0	63.7	59.8
70°	304.4	167.8	63.7	48.1	44.2
72.5°	249.8	121.0	45.5	35.1	33.8
75°	200.3	78.1	31.2	26.0	26.0
77.5°	150.9	46.8	22.1	19.5	19.5
80°	105.4	27.3	15.6	14.3	14.3
82.5°	63.7	14.3	10.4	9.1	9.1
85°	27.3	7.8	6.5	5.2	5.2
87.5°	5.2	2.6	2.6	2.6	2.6
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	19.14	20.58	19.50	20.90	21.21	11.77	13.22	12.14	13.53	13.85
	3H	20.70	21.98	21.08	22.31	22.68	12.34	13.63	12.72	13.95	14.32
	4H	21.22	22.42	21.62	22.77	23.15	12.46	13.66	12.86	14.01	14.39
	6H	21.56	22.66	21.97	23.03	23.42	12.53	13.63	12.94	14.00	14.40
	8H	21.64	22.69	22.07	23.08	23.48	12.53	13.58	12.96	13.97	14.38
	12H	21.66	22.67	22.09	23.05	23.48	12.52	13.53	12.95	13.91	14.34
4H	2H	19.03	20.24	19.44	20.59	20.97	12.34	13.54	12.74	13.89	14.27
	3H	20.70	21.69	21.11	22.09	22.49	13.01	14.00	13.42	14.40	14.80
	4H	21.25	22.13	21.68	22.55	22.99	13.17	14.05	13.60	14.47	14.91
	6H	21.64	22.41	22.10	22.85	23.31	13.28	14.04	13.74	14.49	14.95
	8H	21.75	22.46	22.21	22.91	23.38	13.29	14.01	13.76	14.45	14.92
	12H	21.79	22.43	22.28	22.91	23.38	13.29	13.93	13.78	14.41	14.88
8H	4H	21.15	21.87	21.62	22.31	22.78	13.44	14.15	13.90	14.60	15.07
	6H	21.54	22.12	22.04	22.62	23.10	13.57	14.16	14.07	14.65	15.13
	8H	21.65	22.17	22.17	22.68	23.18	13.60	14.12	14.12	14.64	15.13
	12H	21.71	22.17	22.22	22.67	23.24	13.62	14.09	14.13	14.58	15.15
12H	4H	21.12	21.75	21.60	22.23	22.70	13.45	14.09	13.94	14.57	15.04
	6H	21.49	22.01	22.00	22.53	23.02	13.58	14.11	14.10	14.62	15.11
	8H	21.62	22.08	22.13	22.57	23.14	13.64	14.11	14.15	14.60	15.17