

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: P1056443

Luminaire Tested: S125R3DR-S610D835-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056443  
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-S610D835-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

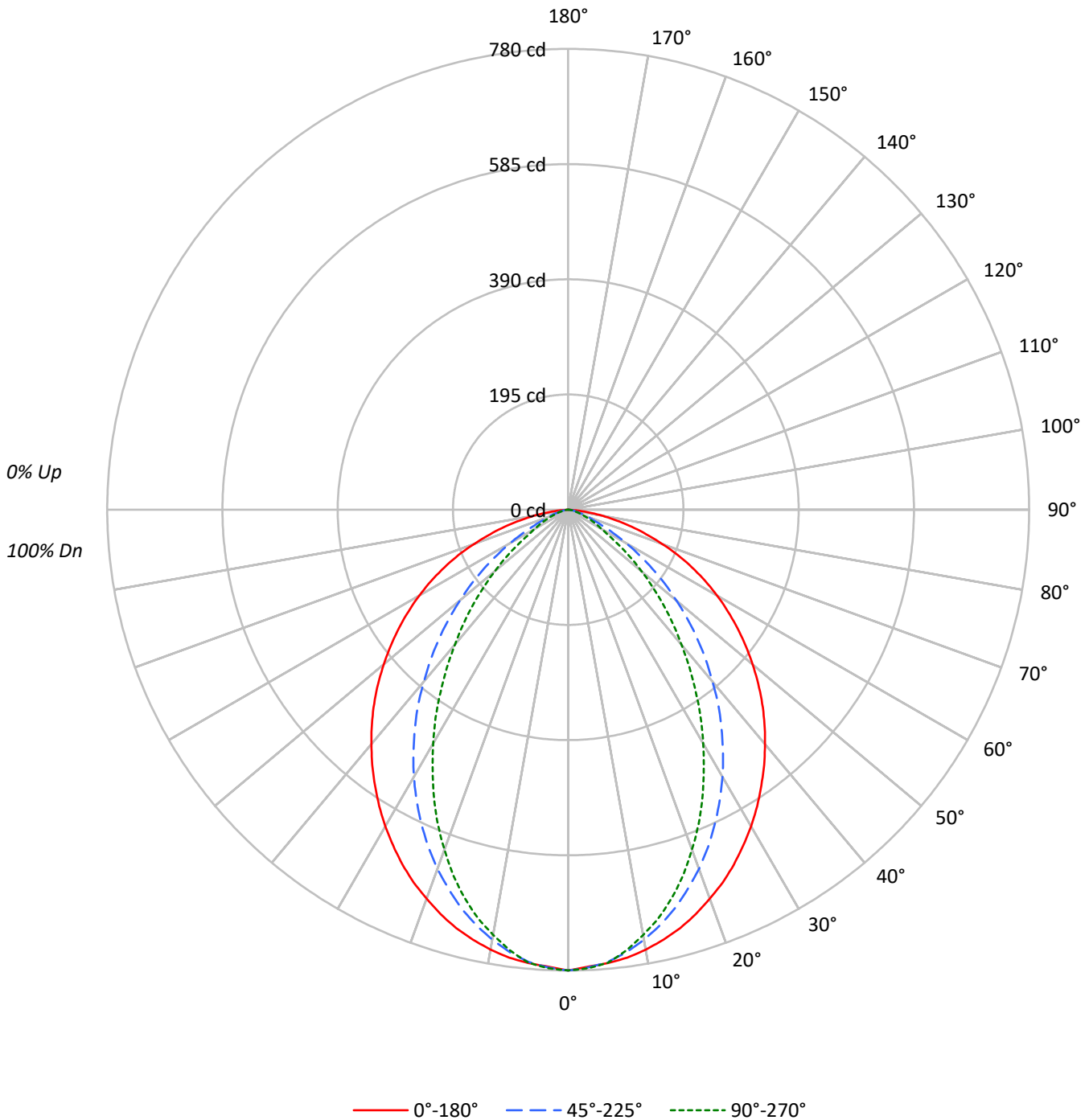
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1409.6 lumens  
Efficiency: N/A  
Efficacy: 73.8 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): 19.1  
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					88			
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77					77			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67					67			
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59					59			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52					52			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47					47			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42					42			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38					38			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35					35			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32					32			

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

	0°	45°	90°
0°	5513	5513	5513
5°	5468	5453	5463
10°	5428	5303	5246
15°	5365	5111	4973
20°	5270	4867	4607
25°	5171	4579	4191
30°	5052	4262	3731
35°	4917	3902	3247
40°	4778	3505	2745
45°	4642	3090	2274
50°	4479	2629	1787
55°	4308	2136	1299
60°	4114	1593	929
65°	3866	1050	724
70°	3493	732	508
75°	3037	473	393
80°	2382	354	322
85°	1233	292	235

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4642 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.6	5.2
10°-20°	197.5	14.0
20°-30°	273.1	19.4
30°-40°	289.3	20.5
40°-50°	252.5	17.9
50°-60°	179.6	12.7
60°-70°	99.9	7.1
70°-80°	38.4	2.7
80°-90°	6.6	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°	543.2	38.5
0°-40°	832.6	59.1
0°-60°	1264.7	89.7
0°-90°	1409.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1409.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	780	780	780	780	780	
5°	770	776	768	766	770	73
15°	733	726	698	683	680	206
25°	663	640	587	551	537	305
35°	570	531	452	397	376	356
45°	464	409	309	247	228	358
55°	350	280	173	120	105	312
65°	231	152	63	46	43	228
75°	111	43	17	14	14	118
85°	15	4	4	3	3	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	779.9	779.9	779.9	779.9	779.9
2.5°	774.1	782.1	775.6	776.3	777.0
5°	770.5	776.3	768.4	766.2	769.8
7.5°	764.7	769.1	755.4	750.3	752.5
10°	756.1	757.5	738.8	731.5	730.8
12.5°	745.3	743.1	720.0	708.4	707.7
15°	733.0	726.5	698.3	683.1	679.5
17.5°	717.8	707.7	673.0	653.5	647.8
20°	700.5	686.8	647.0	621.8	612.4
22.5°	683.1	664.4	618.2	586.4	576.3
25°	662.9	640.5	587.1	551.0	537.3
27.5°	641.3	614.5	555.3	513.4	496.8
30°	618.9	587.8	522.1	475.2	457.1
32.5°	595.0	559.7	487.4	436.2	417.4
35°	569.8	530.8	452.1	397.2	376.2
37.5°	544.5	501.2	417.4	358.9	337.2
40°	517.8	470.8	379.8	319.9	297.5
42.5°	491.8	439.8	344.5	283.1	262.9
45°	464.3	408.7	309.1	247.0	227.5
47.5°	436.2	376.2	273.7	213.0	193.5
50°	407.3	344.5	239.0	179.8	162.5
52.5°	378.4	312.7	206.5	148.0	132.9
55°	349.5	280.2	173.3	119.9	105.4
57.5°	320.6	248.4	142.3	93.9	80.9
60°	291.0	215.9	112.7	69.3	65.7
62.5°	261.4	184.1	87.4	57.0	54.2
65°	231.1	151.7	62.8	46.2	43.3
67.5°	200.8	122.0	45.5	35.4	33.2
70°	169.0	93.2	35.4	26.7	24.6
72.5°	138.7	67.2	25.3	19.5	18.8
75°	111.2	43.3	17.3	14.4	14.4
77.5°	83.8	26.0	12.3	10.8	10.8
80°	58.5	15.2	8.7	7.9	7.9
82.5°	35.4	7.9	5.8	5.1	5.1
85°	15.2	4.3	3.6	2.9	2.9
87.5°	2.9	1.4	1.4	1.4	1.4
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	17.09	18.54	17.46	18.85	19.17	9.73	11.18	10.10	11.49	11.80
	3H	18.65	19.94	19.03	20.27	20.63	10.30	11.58	10.67	11.91	12.27
	4H	19.17	20.38	19.57	20.73	21.11	10.42	11.62	10.82	11.97	12.35
	6H	19.51	20.62	19.92	20.99	21.38	10.48	11.59	10.90	11.96	12.35
	8H	19.59	20.64	20.02	21.04	21.44	10.49	11.54	10.92	11.93	12.33
	12H	19.62	20.62	20.05	21.01	21.44	10.48	11.48	10.91	11.87	12.30
4H	2H	16.99	18.19	17.39	18.54	18.92	10.30	11.50	10.70	11.85	12.23
	3H	18.66	19.64	19.07	20.04	20.45	10.97	11.96	11.38	12.36	12.76
	4H	19.20	20.09	19.64	20.51	20.95	11.13	12.01	11.56	12.43	12.87
	6H	19.60	20.36	20.06	20.81	21.27	11.24	12.00	11.70	12.44	12.91
	8H	19.70	20.42	20.17	20.86	21.33	11.25	11.96	11.71	12.41	12.88
	12H	19.75	20.38	20.23	20.86	21.34	11.25	11.88	11.73	12.36	12.84
8H	4H	19.11	19.82	19.57	20.27	20.74	11.39	12.11	11.86	12.55	13.02
	6H	19.50	20.08	19.99	20.57	21.05	11.53	12.11	12.03	12.61	13.09
	8H	19.60	20.13	20.12	20.64	21.13	11.56	12.08	12.07	12.59	13.08
	12H	19.67	20.13	20.18	20.62	21.19	11.58	12.04	12.09	12.54	13.10
12H	4H	19.07	19.71	19.56	20.19	20.66	11.41	12.04	11.89	12.52	13.00
	6H	19.44	19.97	19.96	20.48	20.97	11.54	12.06	12.06	12.58	13.07
	8H	19.57	20.03	20.08	20.53	21.10	11.60	12.06	12.11	12.56	13.12