

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: P1056444

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

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056444  
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-S610D835-X4F0-XX-UDD-F-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

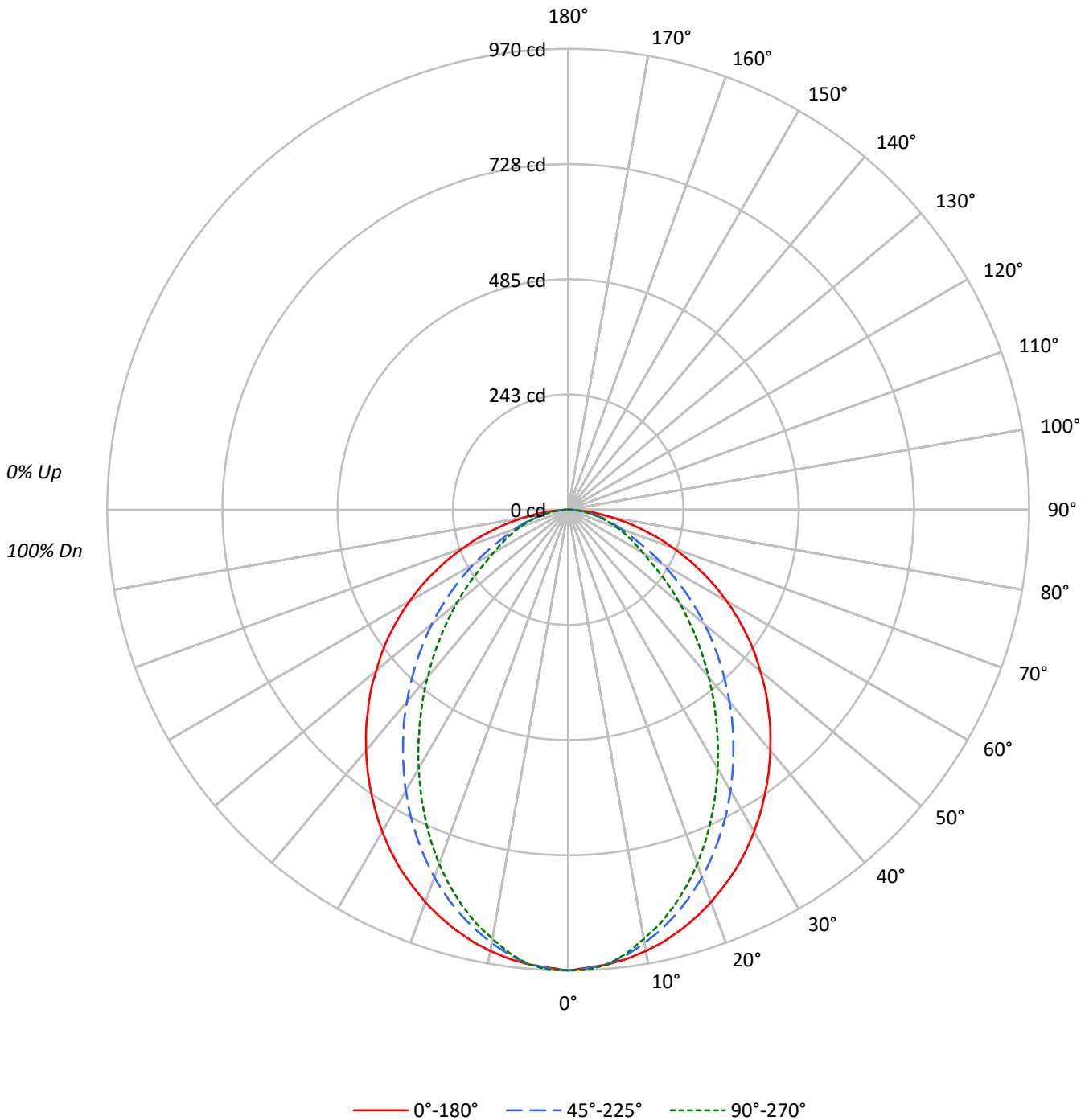
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2055.5 lumens  
Efficiency: N/A  
Efficacy: 107.6 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): 19.1  
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	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	31	42	35	30	41	35	30	40	34	30	28

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

	0°	45°	90°
0°	6856	6856	6856
5°	6816	6810	6816
10°	6770	6646	6583
15°	6702	6443	6310
20°	6611	6193	5970
25°	6512	5898	5565
30°	6384	5576	5135
35°	6245	5229	4687
40°	6105	4872	4245
45°	5957	4498	3805
50°	5798	4114	3368
55°	5652	3694	2928
60°	5452	3246	2573
65°	5182	2753	2392
70°	4866	2464	2238
75°	4398	2267	2111
80°	3823	2060	1970
85°	2985	1817	1817

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5957 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.7	4.4
10°-20°	249.2	12.1
20°-30°	351.9	17.1
30°-40°	387.5	18.8
40°-50°	361.4	17.6
50°-60°	288.5	14.0
60°-70°	194.1	9.4
70°-80°	103.4	5.0
80°-90°	28.7	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°	691.8	33.7
0°-40°	1079.3	52.5
0°-60°	1729.2	84.1
0°-90°	2055.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2055.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	970	970	970	970	970	
5°	960	968	960	957	960	91
15°	916	911	880	865	862	258
25°	835	810	756	723	714	384
35°	724	681	606	558	543	453
45°	596	539	450	395	381	460
55°	459	389	300	252	238	409
65°	310	242	165	146	143	307
75°	161	107	83	78	77	172
85°	37	25	22	23	22	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	969.8	969.8	969.8	969.8	969.8
2.5°	964.8	972.7	966.2	967.7	969.1
5°	960.5	968.4	959.7	956.8	960.5
7.5°	953.2	959.7	945.3	938.8	941.7
10°	943.1	947.5	925.8	917.1	917.1
12.5°	930.8	930.8	904.8	892.6	892.6
15°	915.7	910.6	880.3	865.1	862.2
17.5°	898.3	889.0	852.9	833.4	829.7
20°	878.8	863.7	823.2	798.0	793.6
22.5°	857.2	837.7	790.7	759.7	754.6
25°	834.8	809.5	756.1	722.9	713.5
27.5°	809.5	779.2	720.7	683.1	671.6
30°	782.1	747.4	683.1	641.3	629.0
32.5°	753.9	714.9	644.9	600.1	586.4
35°	723.6	681.0	605.9	558.2	543.1
37.5°	693.3	647.0	567.6	517.8	501.9
40°	661.5	610.9	527.9	476.6	460.0
42.5°	629.7	575.5	488.9	436.9	419.6
45°	595.8	539.4	449.9	395.0	380.6
47.5°	563.3	502.6	411.6	358.2	342.3
50°	527.2	464.3	374.1	320.6	306.2
52.5°	493.9	426.8	336.5	286.7	271.5
55°	458.6	389.2	299.7	252.0	237.6
57.5°	421.7	351.7	264.3	219.5	205.8
60°	385.6	314.1	229.6	188.5	182.0
62.5°	348.8	278.7	197.1	165.4	161.0
65°	309.8	241.9	164.6	145.9	143.0
67.5°	273.0	206.5	138.7	127.8	124.9
70°	235.4	171.1	119.2	109.8	108.3
72.5°	198.6	137.2	100.4	93.9	92.4
75°	161.0	106.9	83.0	78.0	77.3
77.5°	126.4	80.2	65.7	63.5	62.1
80°	93.9	59.9	50.6	49.1	48.4
82.5°	64.3	41.2	36.1	36.1	34.7
85°	36.8	25.3	22.4	23.1	22.4
87.5°	13.7	10.8	10.1	10.8	10.8
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	17.98	19.52	18.34	19.83	20.14	14.36	15.90	14.72	16.21	16.53
	3H	19.76	21.15	20.14	21.47	21.83	15.83	17.22	16.21	17.55	17.91
	4H	20.42	21.71	20.81	22.06	22.44	16.42	17.72	16.82	18.07	18.45
	6H	20.89	22.09	21.30	22.46	22.85	16.89	18.09	17.30	18.45	18.85
	8H	21.05	22.19	21.47	22.58	22.98	17.05	18.19	17.47	18.58	18.98
	12H	21.14	22.24	21.57	22.62	23.05	17.16	18.26	17.59	18.64	19.07
4H	2H	18.11	19.41	18.51	19.76	20.14	15.03	16.33	15.43	16.68	17.06
	3H	20.08	21.16	20.49	21.56	21.96	16.71	17.79	17.12	18.19	18.59
	4H	20.83	21.80	21.26	22.22	22.65	17.42	18.39	17.85	18.80	19.24
	6H	21.42	22.27	21.88	22.71	23.17	18.00	18.85	18.46	19.29	19.75
	8H	21.63	22.42	22.09	22.86	23.33	18.21	19.00	18.67	19.45	19.91
	12H	21.78	22.48	22.26	22.96	23.43	18.37	19.08	18.85	19.56	20.03
8H	4H	20.89	21.68	21.35	22.13	22.59	17.78	18.57	18.24	19.02	19.48
	6H	21.55	22.21	22.05	22.70	23.17	18.48	19.14	18.98	19.63	20.11
	8H	21.80	22.39	22.32	22.90	23.39	18.77	19.36	19.28	19.86	20.35
	12H	22.01	22.53	22.52	23.03	23.59	19.01	19.53	19.52	20.02	20.58
12H	4H	20.88	21.59	21.36	22.07	22.54	17.83	18.54	18.31	19.01	19.49
	6H	21.54	22.13	22.06	22.64	23.13	18.55	19.14	19.07	19.65	20.14
	8H	21.84	22.36	22.35	22.85	23.42	18.90	19.42	19.41	19.91	20.47