

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: P1056575

Luminaire Tested: S125R3DR-H610D830-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056575  
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-H610D830-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

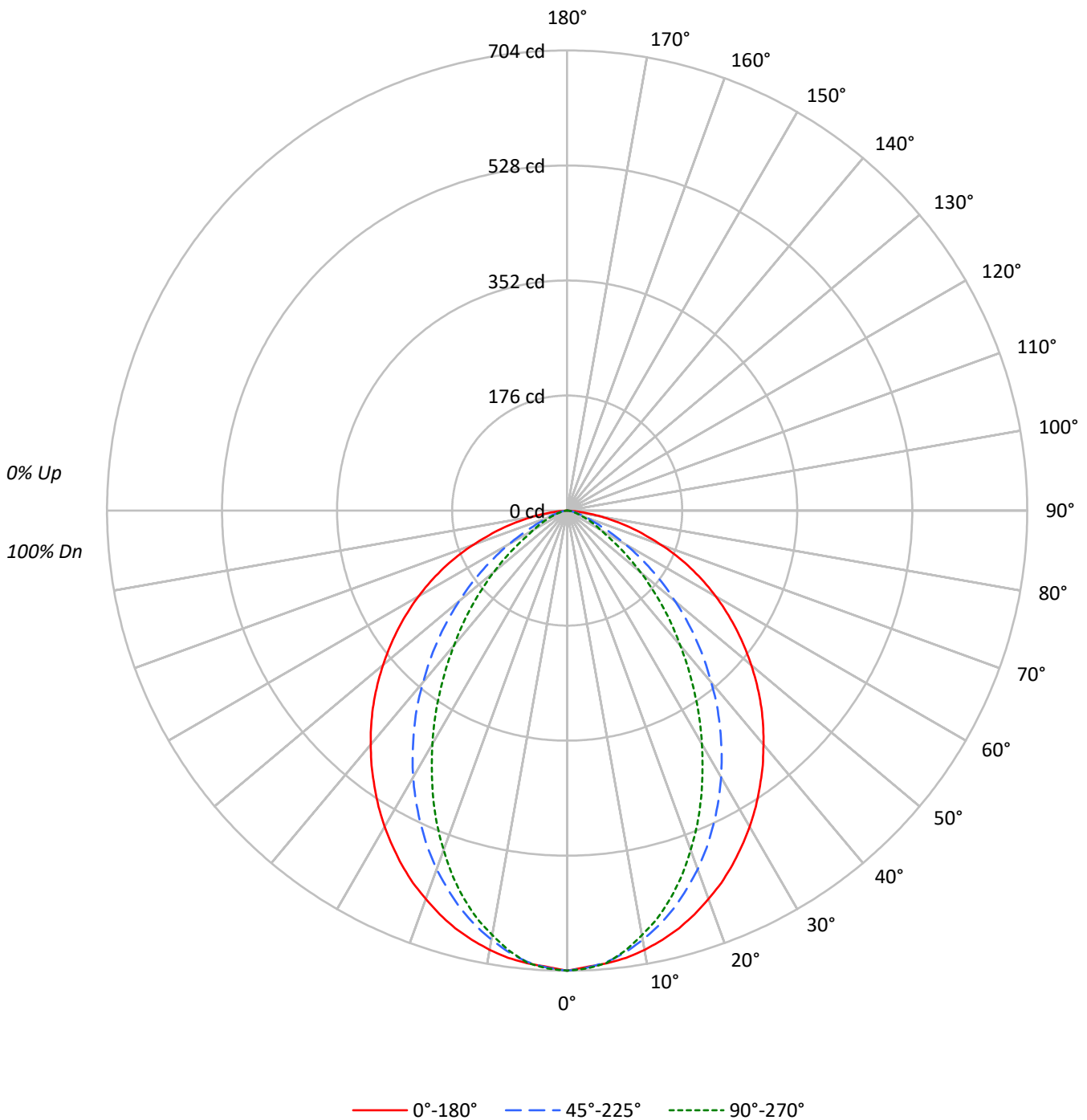
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1272.2 lumens  
Efficiency: N/A  
Efficacy: 73.5 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): 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	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°	4976	4976	4976
5°	4935	4921	4930
10°	4899	4786	4734
15°	4841	4612	4489
20°	4756	4393	4158
25°	4667	4133	3782
30°	4559	3846	3367
35°	4438	3521	2930
40°	4312	3163	2478
45°	4190	2788	2052
50°	4043	2372	1612
55°	3887	1928	1173
60°	3713	1438	838
65°	3489	948	654
70°	3152	659	459
75°	2742	426	355
80°	2150	318	293
85°	1111	268	211

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4190 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.6	5.2
10°-20°	178.2	14.0
20°-30°	246.5	19.4
30°-40°	261.1	20.5
40°-50°	227.9	17.9
50°-60°	162.1	12.7
60°-70°	90.1	7.1
70°-80°	34.7	2.7
80°-90°	6.0	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°	490.3	38.5
0°-40°	751.4	59.1
0°-60°	1141.4	89.7
0°-90°	1272.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1272.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	695	701	693	692	695	66
15°	662	656	630	616	613	186
25°	598	578	530	497	485	275
35°	514	479	408	358	340	322
45°	419	369	279	223	205	323
55°	315	253	156	108	95	282
65°	209	137	57	42	39	206
75°	100	39	16	13	13	106
85°	14	4	3	3	3	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	703.9	703.9	703.9	703.9	703.9
2.5°	698.6	705.8	699.9	700.6	701.3
5°	695.4	700.6	693.4	691.5	694.7
7.5°	690.2	694.1	681.7	677.1	679.1
10°	682.4	683.7	666.7	660.2	659.5
12.5°	672.6	670.6	649.8	639.3	638.7
15°	661.5	655.6	630.2	616.5	613.3
17.5°	647.8	638.7	607.4	589.8	584.6
20°	632.2	619.8	583.9	561.1	552.7
22.5°	616.5	599.6	557.9	529.2	520.1
25°	598.3	578.1	529.8	497.3	484.9
27.5°	578.7	554.6	501.2	463.4	448.4
30°	558.5	530.5	471.2	428.8	412.5
32.5°	537.0	505.1	439.9	393.6	376.7
35°	514.2	479.0	408.0	358.4	339.5
37.5°	491.4	452.3	376.7	323.9	304.4
40°	467.3	424.9	342.8	288.7	268.5
42.5°	443.8	396.9	310.9	255.5	237.2
45°	419.1	368.9	278.9	222.9	205.3
47.5°	393.6	339.5	247.0	192.3	174.7
50°	367.6	310.9	215.7	162.3	146.6
52.5°	341.5	282.2	186.4	133.6	119.9
55°	315.4	252.9	156.4	108.2	95.2
57.5°	289.4	224.2	128.4	84.7	73.0
60°	262.6	194.9	101.7	62.6	59.3
62.5°	235.9	166.2	78.9	51.5	48.9
65°	208.6	136.9	56.7	41.7	39.1
67.5°	181.2	110.1	41.1	31.9	30.0
70°	152.5	84.1	31.9	24.1	22.2
72.5°	125.1	60.6	22.8	17.6	16.9
75°	100.4	39.1	15.6	13.0	13.0
77.5°	75.6	23.5	11.1	9.8	9.8
80°	52.8	13.7	7.8	7.2	7.2
82.5°	31.9	7.2	5.2	4.6	4.6
85°	13.7	3.9	3.3	2.6	2.6
87.5°	2.6	1.3	1.3	1.3	1.3
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	16.74	18.18	17.10	18.50	18.81	9.37	10.82	9.74	11.13	11.45
	3H	18.30	19.58	18.67	19.91	20.27	9.94	11.22	10.32	11.55	11.92
	4H	18.82	20.02	19.22	20.37	20.75	10.06	11.26	10.46	11.61	11.99
	6H	19.15	20.26	19.57	20.63	21.02	10.13	11.23	10.54	11.60	11.99
	8H	19.24	20.29	19.67	20.68	21.08	10.13	11.18	10.56	11.57	11.98
	12H	19.26	20.27	19.69	20.65	21.08	10.12	11.13	10.55	11.51	11.94
4H	2H	16.63	17.84	17.03	18.19	18.57	9.94	11.14	10.34	11.49	11.87
	3H	18.30	19.29	18.71	19.69	20.09	10.61	11.60	11.02	12.00	12.40
	4H	18.85	19.73	19.28	20.15	20.59	10.77	11.65	11.20	12.07	12.51
	6H	19.24	20.01	19.70	20.45	20.91	10.88	11.64	11.34	12.09	12.55
	8H	19.35	20.06	19.81	20.50	20.97	10.89	11.61	11.36	12.05	12.52
	12H	19.39	20.03	19.88	20.51	20.98	10.89	11.53	11.38	12.01	12.48
8H	4H	18.75	19.47	19.22	19.91	20.38	11.04	11.75	11.50	12.20	12.66
	6H	19.14	19.72	19.64	20.22	20.70	11.17	11.76	11.67	12.25	12.73
	8H	19.25	19.77	19.76	20.28	20.77	11.20	11.73	11.72	12.24	12.73
	12H	19.31	19.77	19.82	20.27	20.84	11.22	11.69	11.74	12.18	12.75
12H	4H	18.72	19.35	19.20	19.83	20.30	11.05	11.69	11.54	12.17	12.64
	6H	19.09	19.61	19.60	20.12	20.61	11.18	11.71	11.70	12.22	12.71
	8H	19.21	19.68	19.73	20.17	20.74	11.24	11.71	11.76	12.20	12.77