

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: P1056461

Luminaire Tested: S125R3DR-S610D940-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056461
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-S610D940-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

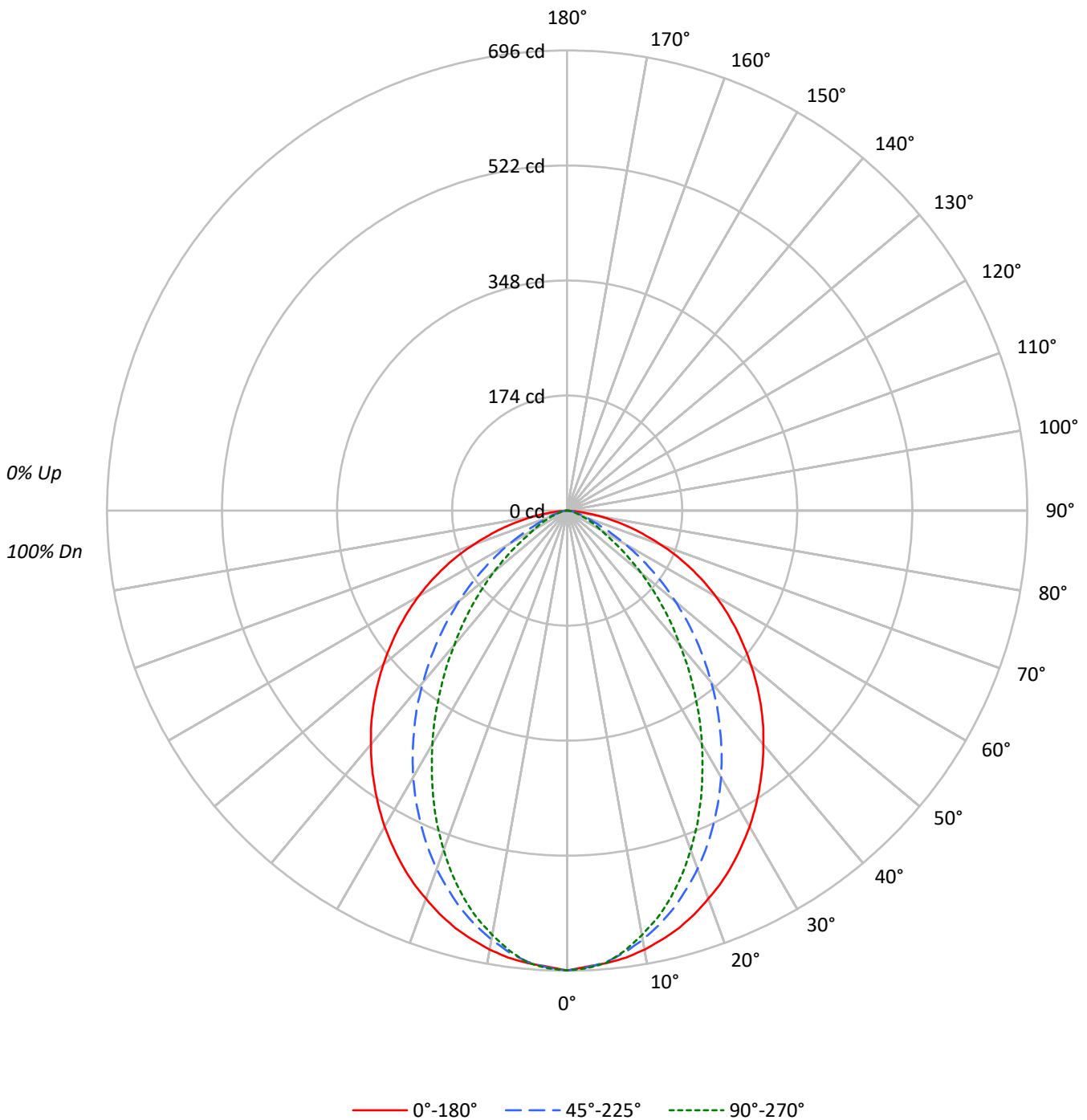
Lumens per Lamp: N/A
Luminaire Lumens: 1257.0 lumens
Efficiency: N/A
Efficacy: 65.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (A_{in}): 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°	4917	4917	4917
5°	4876	4862	4871
10°	4840	4729	4678
15°	4784	4557	4434
20°	4699	4341	4108
25°	4611	4083	3737
30°	4505	3801	3327
35°	4385	3479	2895
40°	4261	3126	2448
45°	4140	2755	2028
50°	3994	2344	1594
55°	3842	1904	1159
60°	3669	1421	829
65°	3448	937	646
70°	3115	653	453
75°	2710	423	352
80°	2125	313	289
85°	1095	260	211

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4140 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.8	5.2
10°-20°	176.1	14.0
20°-30°	243.5	19.4
30°-40°	258.0	20.5
40°-50°	225.2	17.9
50°-60°	160.2	12.7
60°-70°	89.1	7.1
70°-80°	34.2	2.7
80°-90°	5.9	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°	484.4	38.5
0°-40°	742.4	59.1
0°-60°	1127.8	89.7
0°-90°	1257.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1257.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	696	696	696	696	696	
5°	687	692	685	683	686	65
15°	654	648	623	609	606	184
25°	591	571	524	491	479	272
35°	508	473	403	354	336	318
45°	414	364	276	220	203	319
55°	312	250	154	107	94	279
65°	206	135	56	41	39	204
75°	99	39	16	13	13	105
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°	695.5	695.5	695.5	695.5	695.5
2.5°	690.3	697.4	691.6	692.2	692.9
5°	687.1	692.2	685.2	683.2	686.4
7.5°	681.9	685.8	673.6	669.1	671.0
10°	674.2	675.5	658.8	652.3	651.7
12.5°	664.5	662.6	642.0	631.7	631.1
15°	653.6	647.8	622.7	609.2	605.9
17.5°	640.1	631.1	600.2	582.8	577.6
20°	624.6	612.4	577.0	554.4	546.1
22.5°	609.2	592.4	551.2	522.9	513.9
25°	591.1	571.2	523.5	491.3	479.1
27.5°	571.8	548.0	495.2	457.8	443.0
30°	551.9	524.2	465.6	423.7	407.6
32.5°	530.6	499.1	434.7	388.9	372.2
35°	508.1	473.3	403.1	354.2	335.5
37.5°	485.5	446.9	372.2	320.0	300.7
40°	461.7	419.9	338.7	285.3	265.3
42.5°	438.5	392.2	307.2	252.4	234.4
45°	414.1	364.5	275.6	220.2	202.8
47.5°	388.9	335.5	244.1	190.0	172.6
50°	363.2	307.2	213.1	160.3	144.9
52.5°	337.4	278.8	184.2	132.0	118.5
55°	311.7	249.8	154.5	106.9	94.0
57.5°	285.9	221.5	126.9	83.7	72.1
60°	259.5	192.5	100.5	61.8	58.6
62.5°	233.1	164.2	77.9	50.9	48.3
65°	206.1	135.2	56.0	41.2	38.6
67.5°	179.0	108.8	40.6	31.6	29.6
70°	150.7	83.1	31.6	23.8	21.9
72.5°	123.6	59.9	22.5	17.4	16.7
75°	99.2	38.6	15.5	12.9	12.9
77.5°	74.7	23.2	10.9	9.7	9.7
80°	52.2	13.5	7.7	7.1	7.1
82.5°	31.6	7.1	5.2	4.5	4.5
85°	13.5	3.9	3.2	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	16.69	18.14	17.06	18.45	18.77	9.33	10.78	9.70	11.09	11.40
	3H	18.25	19.54	18.63	19.87	20.23	9.90	11.18	10.27	11.51	11.87
	4H	18.77	19.98	19.18	20.33	20.71	10.02	11.22	10.42	11.57	11.95
	6H	19.11	20.22	19.53	20.59	20.98	10.09	11.19	10.50	11.56	11.95
	8H	19.20	20.25	19.62	20.64	21.04	10.09	11.14	10.52	11.53	11.93
	12H	19.22	20.22	19.65	20.61	21.04	10.08	11.09	10.51	11.47	11.90
4H	2H	16.59	17.79	16.99	18.14	18.52	9.90	11.10	10.30	11.45	11.83
	3H	18.26	19.24	18.67	19.65	20.05	10.57	11.56	10.98	11.96	12.36
	4H	18.81	19.69	19.24	20.11	20.55	10.73	11.61	11.16	12.03	12.47
	6H	19.20	19.96	19.66	20.41	20.87	10.84	11.60	11.30	12.05	12.51
	8H	19.30	20.02	19.77	20.46	20.93	10.85	11.56	11.32	12.01	12.48
	12H	19.35	19.99	19.84	20.47	20.94	10.85	11.49	11.34	11.97	12.44
8H	4H	18.71	19.42	19.18	19.87	20.34	11.00	11.71	11.46	12.15	12.62
	6H	19.10	19.68	19.60	20.18	20.65	11.13	11.72	11.63	12.21	12.69
	8H	19.20	19.73	19.72	20.24	20.73	11.16	11.68	11.68	12.20	12.69
	12H	19.27	19.73	19.78	20.23	20.79	11.18	11.65	11.69	12.14	12.71
12H	4H	18.67	19.31	19.16	19.79	20.26	11.01	11.64	11.50	12.13	12.60
	6H	19.04	19.57	19.56	20.08	20.57	11.14	11.67	11.66	12.18	12.67
	8H	19.17	19.64	19.68	20.13	20.70	11.20	11.67	11.71	12.16	12.73