

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: P1056446

Luminaire Tested: S125R3DR-S610D840-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056446
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-S610D840-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, 80 CRI LEDS
Ballast/Driver: -

Summary

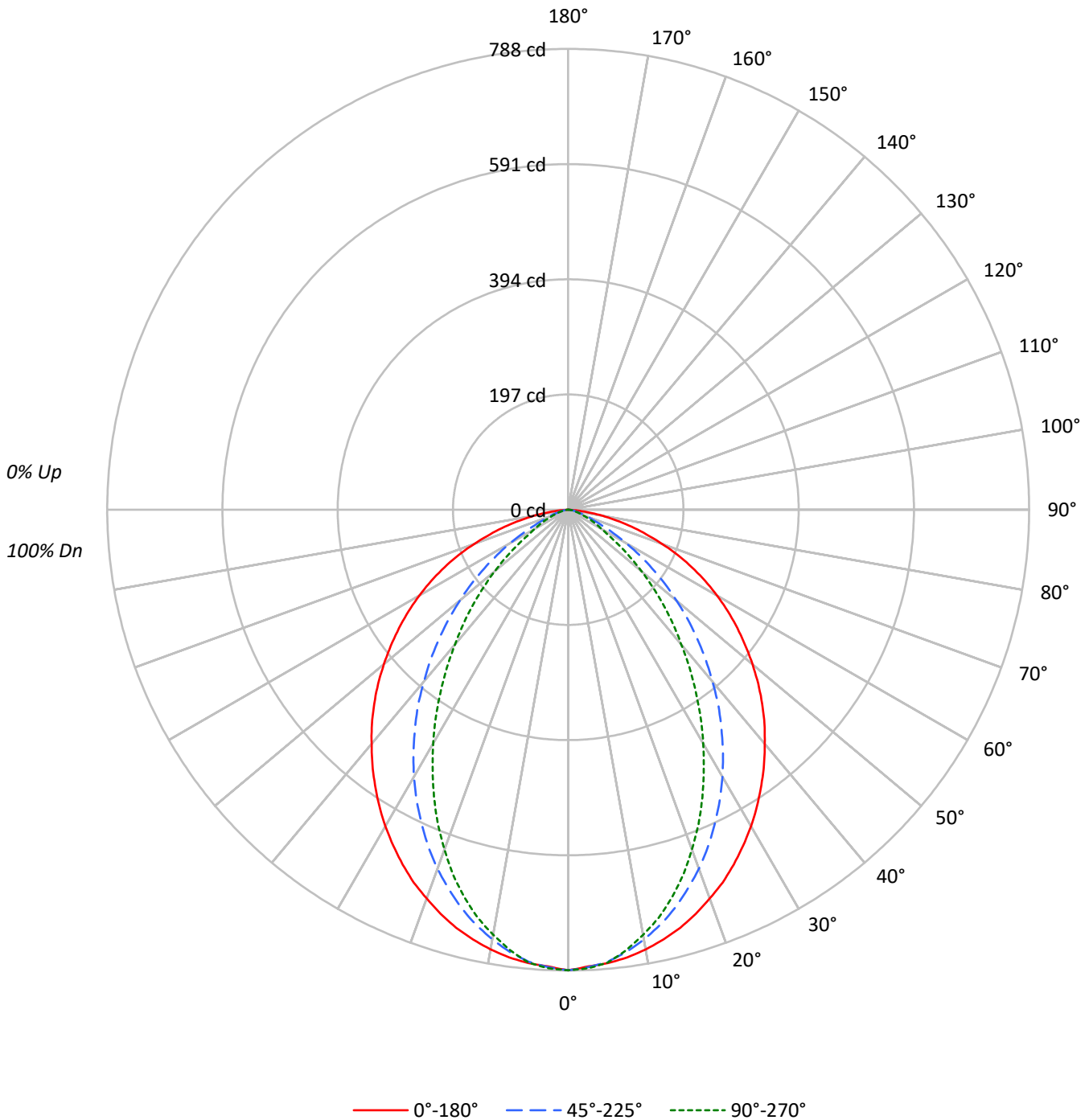
Lumens per Lamp: N/A
Luminaire Lumens: 1423.5 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	5568	5568	5568
5°	5522	5506	5517
10°	5481	5355	5298
15°	5417	5161	5022
20°	5322	4916	4652
25°	5222	4625	4232
30°	5102	4304	3768
35°	4966	3940	3279
40°	4826	3540	2773
45°	4688	3120	2296
50°	4523	2655	1805
55°	4351	2157	1313
60°	4155	1609	939
65°	3904	1061	733
70°	3526	738	513
75°	3067	478	399
80°	2406	358	326
85°	1241	292	235

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4688 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.4	5.2
10°-20°	199.4	14.0
20°-30°	275.8	19.4
30°-40°	292.2	20.5
40°-50°	255.0	17.9
50°-60°	181.4	12.7
60°-70°	100.9	7.1
70°-80°	38.8	2.7
80°-90°	6.7	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°	548.6	38.5
0°-40°	840.8	59.1
0°-60°	1277.2	89.7
0°-90°	1423.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1423.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	788	788	788	788	788	
5°	778	784	776	774	777	74
15°	740	734	705	690	686	208
25°	670	647	593	556	543	308
35°	575	536	456	401	380	360
45°	469	413	312	249	230	361
55°	353	283	175	121	106	316
65°	233	153	63	47	44	231
75°	112	44	18	15	15	119
85°	15	4	4	3	3	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	787.6	787.6	787.6	787.6	787.6
2.5°	781.8	789.8	783.2	784.0	784.7
5°	778.1	784.0	775.9	773.8	777.4
7.5°	772.3	776.7	762.8	757.7	759.9
10°	763.5	765.0	746.0	738.7	738.0
12.5°	752.6	750.4	727.1	715.4	714.7
15°	740.2	733.6	705.2	689.9	686.2
17.5°	724.9	714.7	679.7	660.0	654.2
20°	707.4	693.5	653.4	627.9	618.4
22.5°	689.9	670.9	624.3	592.2	582.0
25°	669.5	646.9	592.9	556.4	542.6
27.5°	647.6	620.6	560.8	518.5	501.7
30°	625.0	593.6	527.3	479.9	461.6
32.5°	600.9	565.2	492.3	440.5	421.5
35°	575.4	536.0	456.5	401.1	379.9
37.5°	549.9	506.1	421.5	362.4	340.6
40°	522.9	475.5	383.6	323.1	300.5
42.5°	496.6	444.1	347.9	285.9	265.5
45°	468.9	412.8	312.1	249.4	229.7
47.5°	440.5	379.9	276.4	215.1	195.4
50°	411.3	347.9	241.4	181.6	164.1
52.5°	382.1	315.8	208.6	149.5	134.2
55°	353.0	283.0	175.0	121.1	106.5
57.5°	323.8	250.9	143.7	94.8	81.7
60°	293.9	218.1	113.8	70.0	66.4
62.5°	264.0	186.0	88.2	57.6	54.7
65°	233.4	153.1	63.4	46.7	43.8
67.5°	202.7	123.2	45.9	35.7	33.5
70°	170.6	94.1	35.7	27.0	24.8
72.5°	140.0	67.8	25.5	19.7	19.0
75°	112.3	43.8	17.5	14.6	14.6
77.5°	84.6	26.3	12.4	10.9	10.9
80°	59.1	15.3	8.8	8.0	8.0
82.5°	35.7	8.0	5.8	5.1	5.1
85°	15.3	4.4	3.6	2.9	2.9
87.5°	2.9	1.5	1.5	1.5	1.5
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	17.13	18.57	17.49	18.89	19.20	9.76	11.21	10.13	11.52	11.84
	3H	18.69	19.97	19.06	20.30	20.66	10.33	11.61	10.71	11.94	12.31
	4H	19.21	20.41	19.61	20.76	21.14	10.45	11.65	10.85	12.00	12.38
	6H	19.55	20.65	19.96	21.02	21.41	10.52	11.62	10.93	11.99	12.38
	8H	19.63	20.68	20.06	21.07	21.47	10.52	11.57	10.95	11.96	12.37
	12H	19.65	20.66	20.08	21.04	21.47	10.51	11.52	10.94	11.90	12.33
4H	2H	17.02	18.23	17.42	18.58	18.96	10.33	11.53	10.73	11.88	12.26
	3H	18.69	19.68	19.10	20.08	20.48	11.00	11.99	11.41	12.39	12.79
	4H	19.24	20.12	19.67	20.54	20.98	11.16	12.04	11.59	12.46	12.90
	6H	19.63	20.40	20.09	20.84	21.30	11.27	12.03	11.73	12.48	12.94
	8H	19.74	20.45	20.20	20.90	21.36	11.28	11.99	11.75	12.44	12.91
	12H	19.78	20.42	20.27	20.90	21.37	11.28	11.92	11.77	12.40	12.87
8H	4H	19.14	19.86	19.61	20.30	20.77	11.43	12.14	11.89	12.59	13.06
	6H	19.53	20.11	20.03	20.61	21.09	11.56	12.15	12.06	12.64	13.12
	8H	19.64	20.16	20.15	20.67	21.16	11.59	12.11	12.11	12.63	13.12
	12H	19.70	20.16	20.21	20.66	21.23	11.61	12.07	12.12	12.57	13.14
12H	4H	19.11	19.74	19.59	20.22	20.69	11.44	12.08	11.93	12.56	13.03
	6H	19.48	20.00	19.99	20.51	21.00	11.57	12.10	12.09	12.61	13.10
	8H	19.60	20.07	20.12	20.56	21.13	11.63	12.10	12.14	12.59	13.16