

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: P1056447

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056447
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-S610D840-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

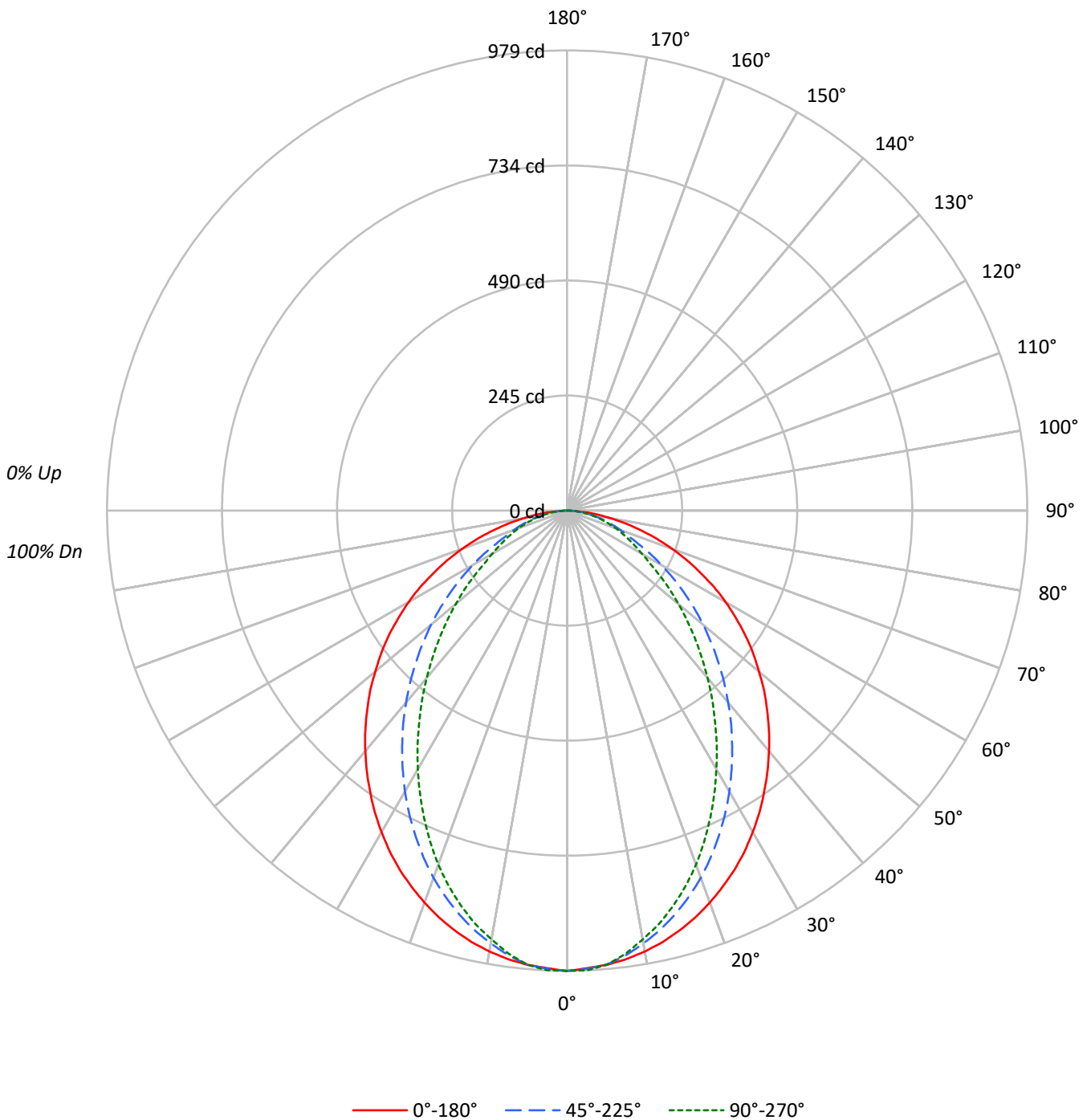
Lumens per Lamp: N/A
Luminaire Lumens: 2075.8 lumens
Efficiency: N/A
Efficacy: 108.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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°	6924	6924	6924
5°	6883	6878	6883
10°	6837	6711	6649
15°	6768	6506	6372
20°	6677	6255	6030
25°	6576	5955	5620
30°	6447	5632	5185
35°	6306	5281	4733
40°	6165	4920	4287
45°	6015	4542	3842
50°	5855	4155	3401
55°	5708	3730	2957
60°	5506	3279	2599
65°	5234	2782	2415
70°	4913	2487	2261
75°	4441	2292	2130
80°	3859	2076	1991
85°	3017	1833	1833

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6015 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.6	4.4
10°-20°	251.6	12.1
20°-30°	355.4	17.1
30°-40°	391.3	18.8
40°-50°	365.0	17.6
50°-60°	291.4	14.0
60°-70°	196.1	9.4
70°-80°	104.4	5.0
80°-90°	29.0	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°	698.7	33.7
0°-40°	1090.0	52.5
0°-60°	1746.3	84.1
0°-90°	2075.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2075.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	979	979	979	979	979	
5°	970	978	969	966	970	92
15°	925	920	889	874	871	261
25°	843	818	764	730	720	388
35°	731	688	612	564	548	457
45°	602	545	454	399	384	464
55°	463	393	303	254	240	413
65°	313	244	166	147	144	310
75°	163	108	84	79	78	173
85°	37	26	23	23	23	44
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	979.4	979.4	979.4	979.4	979.4
2.5°	974.3	982.3	975.8	977.2	978.7
5°	969.9	977.9	969.2	966.3	969.9
7.5°	962.6	969.2	954.6	948.0	951.0
10°	952.4	956.8	934.9	926.2	926.2
12.5°	940.0	940.0	913.8	901.4	901.4
15°	924.7	919.6	889.0	873.7	870.7
17.5°	907.2	897.7	861.3	841.6	837.9
20°	887.5	872.2	831.4	805.8	801.5
22.5°	865.6	846.0	798.5	767.2	762.1
25°	843.0	817.5	763.5	730.0	720.5
27.5°	817.5	786.9	727.8	689.9	678.2
30°	789.8	754.8	689.9	647.6	635.2
32.5°	761.4	722.0	651.2	606.0	592.2
35°	730.7	687.7	611.9	563.7	548.4
37.5°	700.1	653.4	573.2	522.9	506.8
40°	668.0	617.0	533.1	481.3	464.5
42.5°	635.9	581.2	493.7	441.2	423.7
45°	601.6	544.8	454.3	398.9	384.3
47.5°	568.8	507.6	415.7	361.7	345.7
50°	532.4	468.9	377.8	323.8	309.2
52.5°	498.8	431.0	339.8	289.5	274.2
55°	463.1	393.1	302.6	254.5	239.9
57.5°	425.9	355.2	266.9	221.7	207.8
60°	389.4	317.2	231.9	190.3	183.8
62.5°	352.2	281.5	199.1	167.0	162.6
65°	312.9	244.3	166.3	147.3	144.4
67.5°	275.7	208.6	140.0	129.1	126.2
70°	237.7	172.8	120.3	110.8	109.4
72.5°	200.5	138.6	101.4	94.8	93.3
75°	162.6	107.9	83.9	78.8	78.0
77.5°	127.6	80.9	66.4	64.2	62.7
80°	94.8	60.5	51.0	49.6	48.9
82.5°	64.9	41.6	36.5	36.5	35.0
85°	37.2	25.5	22.6	23.3	22.6
87.5°	13.9	10.9	10.2	10.9	10.9
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	18.01	19.55	18.38	19.87	20.18	14.39	15.93	14.76	16.25	16.56
	3H	19.80	21.18	20.17	21.51	21.87	15.87	17.25	16.25	17.58	17.94
	4H	20.45	21.75	20.85	22.10	22.48	16.46	17.76	16.86	18.11	18.48
	6H	20.93	22.13	21.34	22.49	22.88	16.92	18.12	17.33	18.49	18.88
	8H	21.08	22.22	21.51	22.61	23.01	17.08	18.23	17.51	18.62	19.02
	12H	21.18	22.27	21.61	22.65	23.08	17.20	18.29	17.63	18.67	19.10
4H	2H	18.15	19.45	18.55	19.79	20.17	15.07	16.37	15.47	16.72	17.10
	3H	20.12	21.20	20.53	21.60	22.00	16.75	17.83	17.16	18.23	18.63
	4H	20.86	21.83	21.29	22.25	22.69	17.45	18.42	17.88	18.84	19.28
	6H	21.46	22.30	21.91	22.75	23.20	18.04	18.88	18.49	19.33	19.79
	8H	21.66	22.45	22.12	22.90	23.37	18.24	19.04	18.71	19.48	19.95
	12H	21.81	22.52	22.29	23.00	23.47	18.41	19.11	18.89	19.59	20.06
8H	4H	20.92	21.72	21.39	22.16	22.63	17.81	18.61	18.28	19.05	19.52
	6H	21.58	22.24	22.08	22.73	23.21	18.52	19.17	19.01	19.66	20.14
	8H	21.84	22.43	22.35	22.94	23.42	18.80	19.39	19.31	19.90	20.39
	12H	22.05	22.57	22.55	23.06	23.62	19.04	19.56	19.55	20.06	20.62
12H	4H	20.92	21.63	21.40	22.10	22.58	17.86	18.57	18.34	19.05	19.52
	6H	21.58	22.17	22.09	22.68	23.16	18.59	19.18	19.10	19.69	20.18
	8H	21.87	22.39	22.38	22.89	23.45	18.93	19.45	19.44	19.94	20.51