

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: P1056462

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056462
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-S610D940-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, 90 CRI LEDS
Ballast/Driver: -

Summary

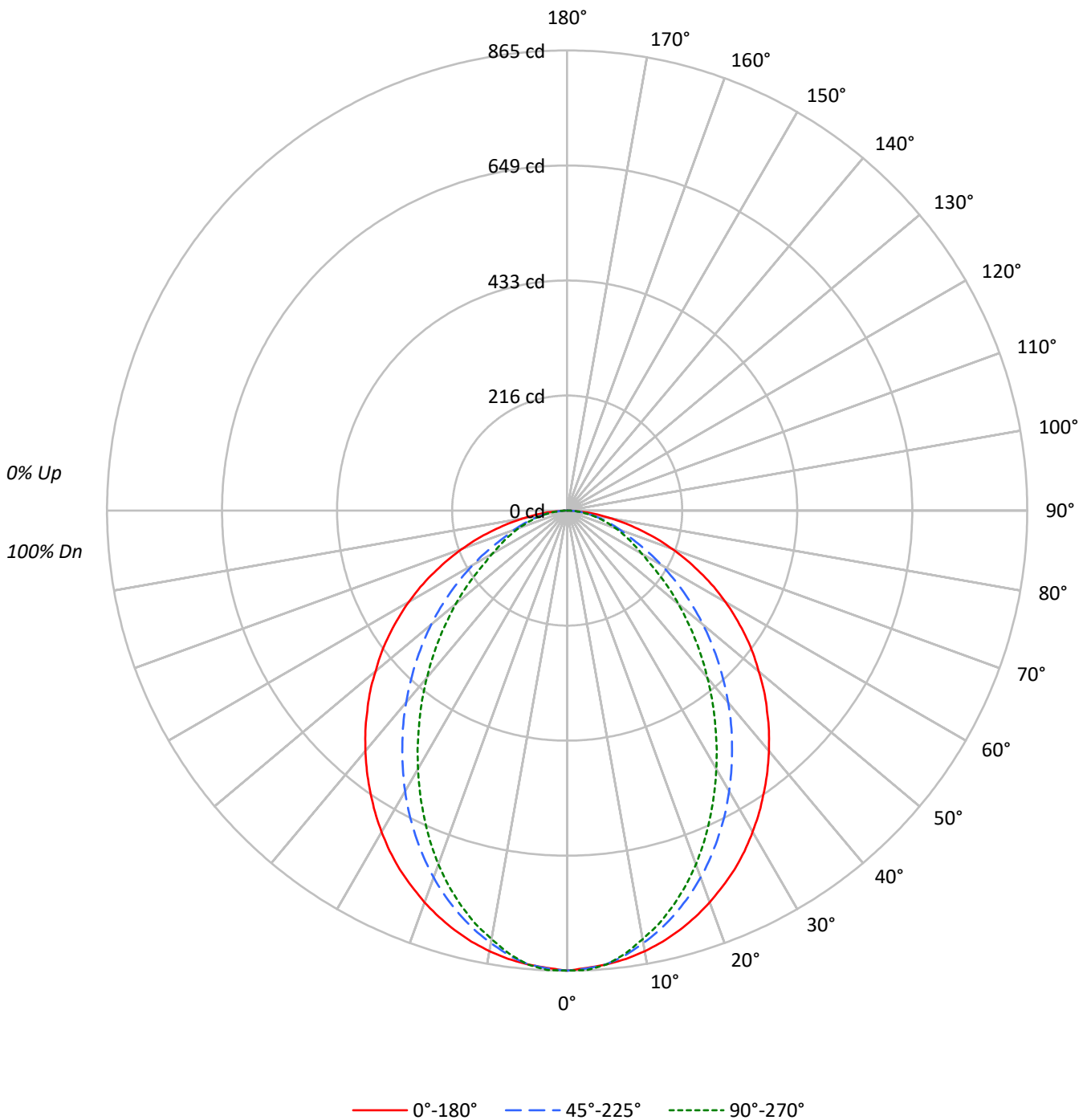
Lumens per Lamp: N/A
Luminaire Lumens: 1833.0 lumens
Efficiency: N/A
Efficacy: 96.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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	30	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6114	6114	6114
5°	6077	6073	6077
10°	6037	5926	5870
15°	5976	5745	5627
20°	5896	5523	5324
25°	5806	5259	4962
30°	5693	4973	4579
35°	5568	4663	4179
40°	5444	4344	3785
45°	5312	4011	3393
50°	5170	3669	3002
55°	5040	3293	2612
60°	4862	2896	2295
65°	4622	2456	2133
70°	4338	2197	1997
75°	3922	2024	1882
80°	3407	1836	1755
85°	2660	1622	1622

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5312 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.9	4.4
10°-20°	222.2	12.1
20°-30°	313.8	17.1
30°-40°	345.5	18.8
40°-50°	322.3	17.6
50°-60°	257.3	14.0
60°-70°	173.1	9.4
70°-80°	92.2	5.0
80°-90°	25.6	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°	616.9	33.7
0°-40°	962.4	52.5
0°-60°	1542.0	84.1
0°-90°	1833.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1833.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	865	865	865	865	865	
5°	856	864	856	853	856	81
15°	816	812	785	771	769	230
25°	744	722	674	645	636	343
35°	645	607	540	498	484	404
45°	531	481	401	352	339	410
55°	409	347	267	225	212	365
65°	276	216	147	130	128	274
75°	144	95	74	70	69	153
85°	33	22	20	21	20	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	864.8	864.8	864.8	864.8	864.8
2.5°	860.3	867.4	861.6	862.9	864.2
5°	856.4	863.5	855.8	853.2	856.4
7.5°	850.0	855.8	842.9	837.1	839.7
10°	841.0	844.9	825.5	817.8	817.8
12.5°	830.0	830.0	806.9	795.9	795.9
15°	816.5	812.0	785.0	771.4	768.9
17.5°	801.1	792.7	760.5	743.1	739.9
20°	783.7	770.2	734.1	711.6	707.7
22.5°	764.4	747.0	705.1	677.4	672.9
25°	744.4	721.9	674.2	644.6	636.2
27.5°	721.9	694.8	642.7	609.2	598.9
30°	697.4	666.5	609.2	571.8	560.9
32.5°	672.3	637.5	575.0	535.1	522.9
35°	645.2	607.2	540.3	497.8	484.2
37.5°	618.2	577.0	506.1	461.7	447.5
40°	589.9	544.8	470.7	425.0	410.2
42.5°	561.5	513.2	435.9	389.6	374.1
45°	531.3	481.0	401.2	352.2	339.4
47.5°	502.3	448.2	367.0	319.4	305.2
50°	470.1	414.1	333.6	285.9	273.0
52.5°	440.5	380.6	300.1	255.6	242.1
55°	408.9	347.1	267.2	224.7	211.9
57.5°	376.1	313.6	235.7	195.8	183.5
60°	343.9	280.1	204.8	168.1	162.3
62.5°	311.0	248.6	175.8	147.5	143.6
65°	276.3	215.7	146.8	130.1	127.5
67.5°	243.4	184.2	123.6	114.0	111.4
70°	209.9	152.6	106.3	97.9	96.6
72.5°	177.1	122.3	89.5	83.7	82.4
75°	143.6	95.3	74.1	69.5	68.9
77.5°	112.7	71.5	58.6	56.7	55.4
80°	83.7	53.4	45.1	43.8	43.1
82.5°	57.3	36.7	32.2	32.2	30.9
85°	32.8	22.5	20.0	20.6	20.0
87.5°	12.2	9.7	9.0	9.7	9.7
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	17.58	19.12	17.94	19.43	19.75	13.96	15.50	14.33	15.82	16.13
	3H	19.36	20.75	19.74	21.08	21.44	15.44	16.82	15.82	17.15	17.51
	4H	20.02	21.32	20.42	21.66	22.04	16.03	17.33	16.43	17.68	18.05
	6H	20.49	21.69	20.91	22.06	22.45	16.49	17.69	16.90	18.06	18.45
	8H	20.65	21.79	21.07	22.18	22.58	16.65	17.79	17.08	18.18	18.58
	12H	20.74	21.84	21.17	22.22	22.65	16.77	17.86	17.20	18.24	18.67
4H	2H	17.71	19.01	18.11	19.36	19.74	14.64	15.94	15.04	16.29	16.66
	3H	19.68	20.76	20.09	21.16	21.56	16.32	17.40	16.73	17.80	18.20
	4H	20.43	21.40	20.86	21.82	22.26	17.02	17.99	17.45	18.41	18.84
	6H	21.02	21.87	21.48	22.31	22.77	17.60	18.45	18.06	18.89	19.35
	8H	21.23	22.02	21.69	22.47	22.93	17.81	18.60	18.27	19.05	19.52
	12H	21.38	22.09	21.86	22.56	23.03	17.97	18.68	18.45	19.16	19.63
8H	4H	20.49	21.28	20.95	21.73	22.20	17.38	18.18	17.85	18.62	19.09
	6H	21.15	21.81	21.65	22.30	22.77	18.08	18.74	18.58	19.23	19.71
	8H	21.40	21.99	21.92	22.50	22.99	18.37	18.96	18.88	19.47	19.95
	12H	21.61	22.13	22.12	22.63	23.19	18.61	19.13	19.12	19.62	20.19
12H	4H	20.48	21.19	20.97	21.67	22.14	17.43	18.14	17.91	18.62	19.09
	6H	21.15	21.74	21.66	22.24	22.73	18.16	18.75	18.67	19.26	19.74
	8H	21.44	21.96	21.95	22.45	23.02	18.50	19.02	19.01	19.51	20.08