

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: P1056453

Luminaire Tested: S125R3DR-S610D927-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056453
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-S610D927-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

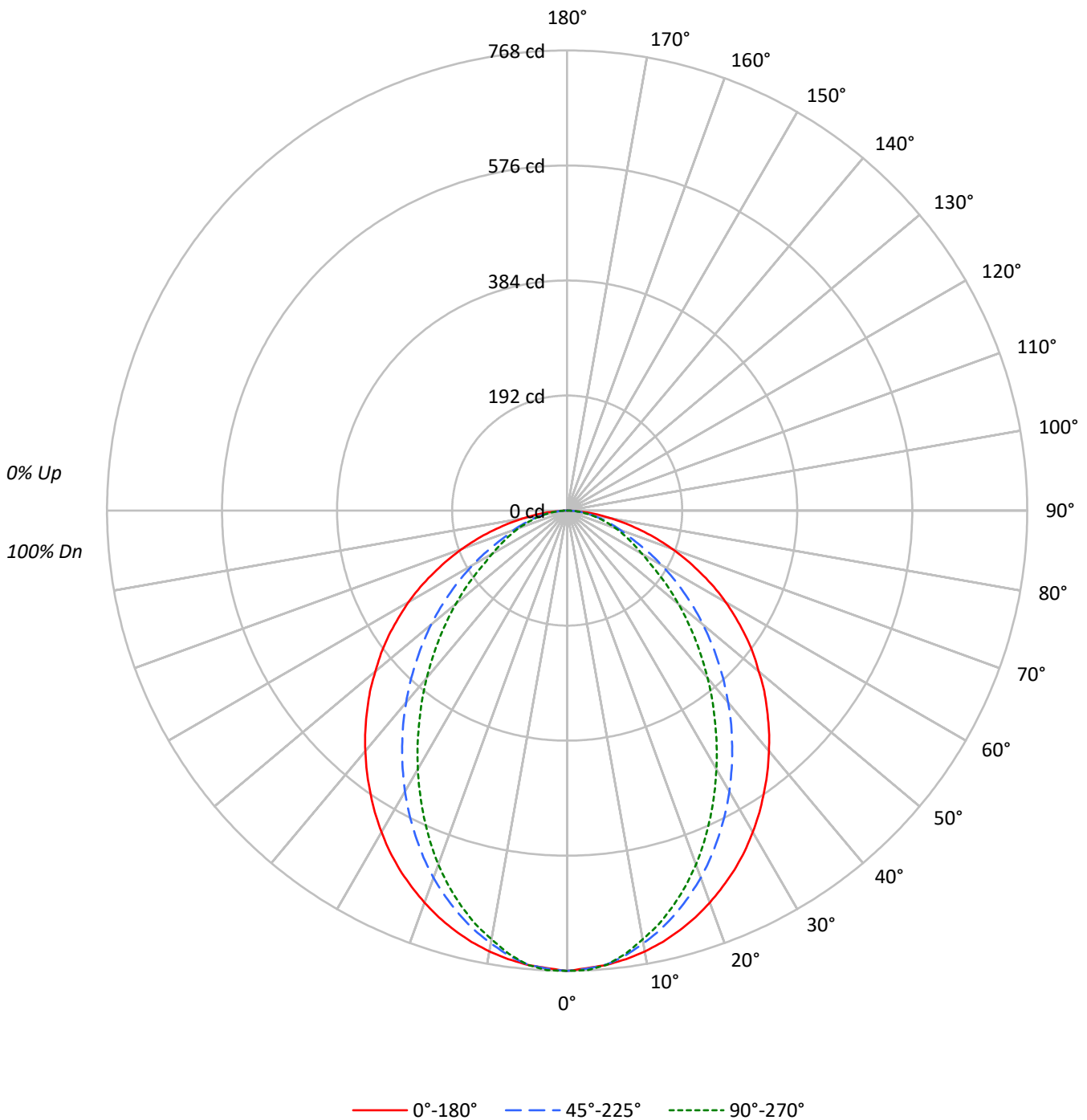
Lumens per Lamp: N/A
Luminaire Lumens: 1628.4 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (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	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°	5431	5431	5431
5°	5400	5395	5400
10°	5363	5265	5215
15°	5309	5104	4999
20°	5238	4907	4730
25°	5158	4672	4409
30°	5058	4418	4068
35°	4947	4142	3713
40°	4836	3859	3363
45°	4719	3563	3014
50°	4593	3259	2668
55°	4478	2926	2320
60°	4319	2572	2039
65°	4105	2181	1895
70°	3855	1951	1773
75°	3485	1797	1672
80°	3029	1628	1559
85°	2368	1436	1436

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4719 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.9	4.4
10°-20°	197.4	12.1
20°-30°	278.8	17.1
30°-40°	306.9	18.8
40°-50°	286.3	17.6
50°-60°	228.6	14.0
60°-70°	153.8	9.4
70°-80°	81.9	5.0
80°-90°	22.8	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°	548.1	33.7
0°-40°	855.0	52.5
0°-60°	1369.9	84.1
0°-90°	1628.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1628.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	761	767	760	758	761	72
15°	725	721	697	685	683	205
25°	661	641	599	573	565	304
35°	573	540	480	442	430	359
45°	472	427	356	313	302	364
55°	363	308	237	200	188	324
65°	245	192	130	116	113	243
75°	128	85	66	62	61	136
85°	29	20	18	18	18	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	768.3	768.3	768.3	768.3	768.3
2.5°	764.3	770.6	765.4	766.6	767.7
5°	760.9	767.1	760.3	758.0	760.9
7.5°	755.1	760.3	748.8	743.7	746.0
10°	747.1	750.6	733.4	726.5	726.5
12.5°	737.4	737.4	716.8	707.1	707.1
15°	725.4	721.4	697.4	685.3	683.0
17.5°	711.7	704.2	675.6	660.2	657.3
20°	696.2	684.2	652.2	632.1	628.7
22.5°	679.0	663.6	626.4	601.8	597.8
25°	661.3	641.3	599.0	572.6	565.2
27.5°	641.3	617.3	570.9	541.2	532.0
30°	619.6	592.1	541.2	508.0	498.3
32.5°	597.2	566.3	510.9	475.4	464.5
35°	573.2	539.5	480.0	442.2	430.2
37.5°	549.2	512.6	449.6	410.2	397.6
40°	524.0	484.0	418.2	377.6	364.4
42.5°	498.8	455.9	387.3	346.1	332.4
45°	472.0	427.3	356.4	312.9	301.5
47.5°	446.2	398.2	326.1	283.7	271.2
50°	417.6	367.8	296.3	254.0	242.6
52.5°	391.3	338.1	266.6	227.1	215.1
55°	363.3	308.3	237.4	199.7	188.2
57.5°	334.1	278.6	209.4	173.9	163.0
60°	305.5	248.8	181.9	149.3	144.2
62.5°	276.3	220.8	156.2	131.0	127.6
65°	245.4	191.6	130.4	115.6	113.3
67.5°	216.2	163.6	109.8	101.3	99.0
70°	186.5	135.6	94.4	87.0	85.8
72.5°	157.3	108.7	79.5	74.4	73.2
75°	127.6	84.7	65.8	61.8	61.2
77.5°	100.1	63.5	52.1	50.3	49.2
80°	74.4	47.5	40.0	38.9	38.3
82.5°	50.9	32.6	28.6	28.6	27.5
85°	29.2	20.0	17.7	18.3	17.7
87.5°	10.9	8.6	8.0	8.6	8.6
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	17.17	18.71	17.53	19.02	19.34	13.55	15.09	13.91	15.40	15.72
	3H	18.95	20.34	19.33	20.66	21.03	15.03	16.41	15.40	16.74	17.10
	4H	19.61	20.91	20.01	21.25	21.63	15.62	16.92	16.02	17.26	17.64
	6H	20.08	21.28	20.49	21.65	22.04	16.08	17.28	16.49	17.65	18.04
	8H	20.24	21.38	20.66	21.77	22.17	16.24	17.38	16.67	17.77	18.17
	12H	20.33	21.43	20.76	21.81	22.24	16.35	17.45	16.78	17.83	18.26
4H	2H	17.30	18.60	17.70	18.95	19.33	14.23	15.52	14.63	15.87	16.25
	3H	19.27	20.35	19.68	20.75	21.15	15.90	16.98	16.31	17.38	17.78
	4H	20.02	20.99	20.45	21.41	21.84	16.61	17.58	17.04	18.00	18.43
	6H	20.61	21.46	21.07	21.90	22.36	17.19	18.04	17.65	18.48	18.94
	8H	20.82	21.61	21.28	22.06	22.52	17.40	18.19	17.86	18.64	19.10
	12H	20.97	21.68	21.45	22.15	22.62	17.56	18.27	18.04	18.75	19.22
8H	4H	20.08	20.87	20.54	21.32	21.78	16.97	17.76	17.43	18.21	18.67
	6H	20.74	21.40	21.24	21.89	22.36	17.67	18.33	18.17	18.82	19.30
	8H	20.99	21.58	21.51	22.09	22.58	17.96	18.55	18.47	19.06	19.54
	12H	21.20	21.72	21.71	22.22	22.78	18.20	18.72	18.71	19.21	19.78
12H	4H	20.07	20.78	20.56	21.26	21.73	17.02	17.73	17.50	18.21	18.68
	6H	20.73	21.33	21.25	21.83	22.32	17.74	18.33	18.26	18.84	19.33
	8H	21.03	21.55	21.54	22.04	22.61	18.09	18.61	18.60	19.10	19.66