

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: P1056594

Luminaire Tested: S125R3DR-H610D935-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056594
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-H610D935-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

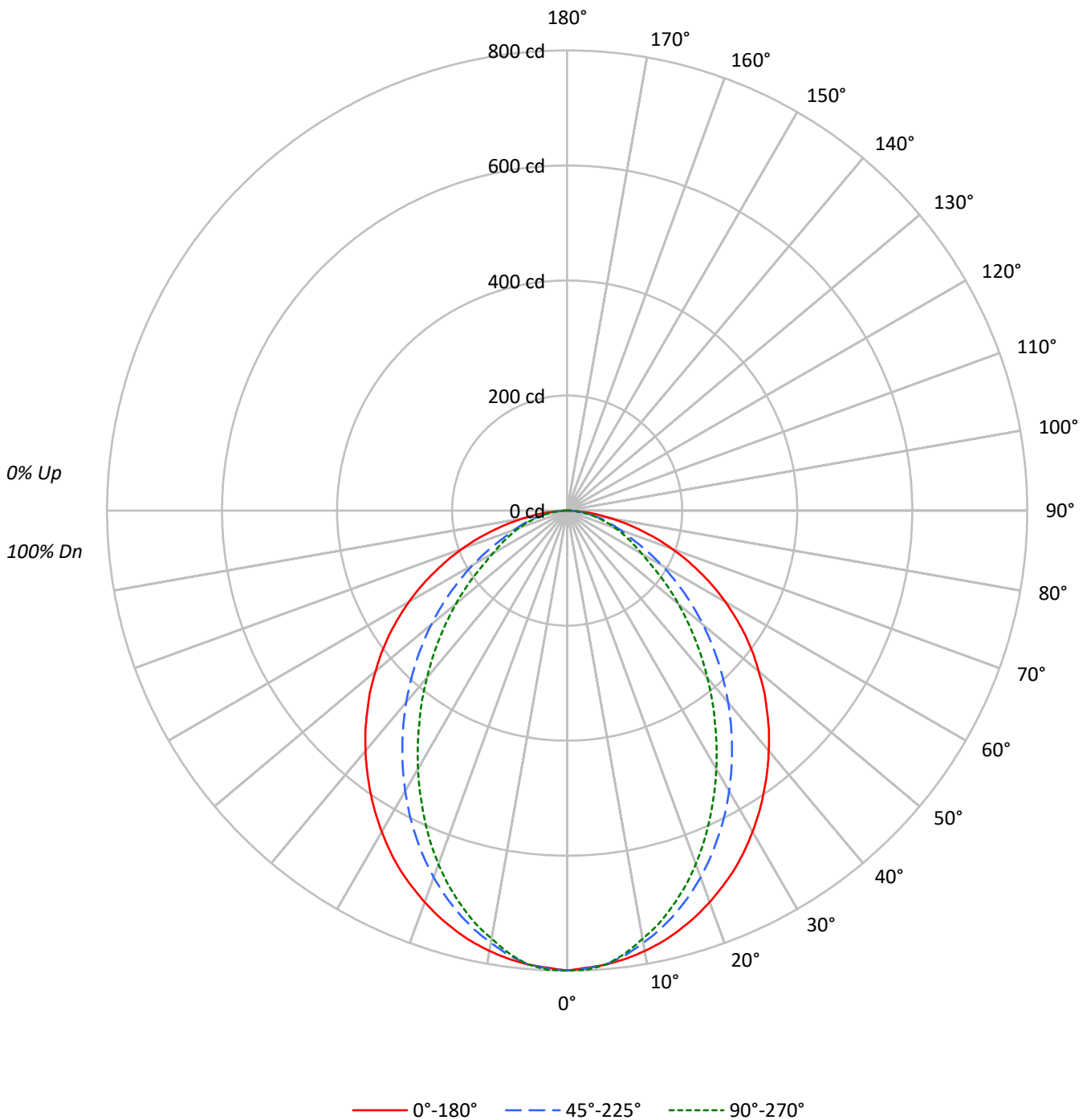
Lumens per Lamp: N/A
Luminaire Lumens: 1694.6 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 17.3
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°	5652	5652	5652
5°	5619	5615	5619
10°	5581	5479	5428
15°	5525	5311	5202
20°	5450	5106	4922
25°	5368	4862	4588
30°	5263	4597	4232
35°	5148	4311	3864
40°	5032	4016	3499
45°	4911	3708	3136
50°	4780	3392	2776
55°	4659	3046	2414
60°	4495	2676	2121
65°	4272	2270	1972
70°	4012	2030	1846
75°	3627	1871	1740
80°	3151	1698	1624
85°	2466	1501	1501

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4911 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.8	4.4
10°-20°	205.4	12.1
20°-30°	290.2	17.1
30°-40°	319.4	18.8
40°-50°	298.0	17.6
50°-60°	237.9	14.0
60°-70°	160.1	9.4
70°-80°	85.3	5.0
80°-90°	23.7	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°	570.4	33.7
0°-40°	889.8	52.5
0°-60°	1425.6	84.1
0°-90°	1694.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1694.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	800	800	800	800	800	
5°	792	798	791	789	792	75
15°	755	751	726	713	711	213
25°	688	667	623	596	588	317
35°	596	561	500	460	448	373
45°	491	445	371	326	314	379
55°	378	321	247	208	196	337
65°	255	199	136	120	118	253
75°	133	88	68	64	64	141
85°	30	21	18	19	18	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	799.5	799.5	799.5	799.5	799.5
2.5°	795.4	801.9	796.6	797.8	798.9
5°	791.8	798.3	791.2	788.8	791.8
7.5°	785.8	791.2	779.3	773.9	776.3
10°	777.5	781.1	763.2	756.1	756.1
12.5°	767.4	767.4	746.0	735.8	735.8
15°	754.9	750.7	725.7	713.2	710.8
17.5°	740.6	732.9	703.1	687.0	684.0
20°	724.5	712.0	678.7	657.8	654.3
22.5°	706.7	690.6	651.9	626.3	622.1
25°	688.2	667.4	623.3	595.9	588.2
27.5°	667.4	642.4	594.1	563.2	553.7
30°	644.8	616.2	563.2	528.7	518.5
32.5°	621.5	589.4	531.6	494.7	483.4
35°	596.5	561.4	499.5	460.2	447.7
37.5°	571.5	533.4	467.9	426.9	413.8
40°	545.3	503.7	435.2	392.9	379.2
42.5°	519.1	474.5	403.0	360.2	345.9
45°	491.2	444.7	370.9	325.6	313.7
47.5°	464.4	414.4	339.3	295.3	282.2
50°	434.6	382.8	308.4	264.3	252.4
52.5°	407.2	351.8	277.4	236.3	223.8
55°	378.0	320.9	247.1	207.8	195.9
57.5°	347.7	289.9	217.9	181.0	169.7
60°	317.9	259.0	189.3	155.4	150.0
62.5°	287.5	229.8	162.5	136.3	132.8
65°	255.4	199.4	135.7	120.3	117.9
67.5°	225.0	170.3	114.3	105.4	103.0
70°	194.1	141.1	98.2	90.5	89.3
72.5°	163.7	113.1	82.8	77.4	76.2
75°	132.8	88.1	68.5	64.3	63.7
77.5°	104.2	66.1	54.2	52.4	51.2
80°	77.4	49.4	41.7	40.5	39.9
82.5°	53.0	33.9	29.8	29.8	28.6
85°	30.4	20.8	18.5	19.1	18.5
87.5°	11.3	8.9	8.3	8.9	8.9
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	17.31	18.85	17.67	19.16	19.47	13.69	15.23	14.05	15.54	15.86
	3H	19.09	20.47	19.47	20.80	21.16	15.17	16.55	15.54	16.88	17.24
	4H	19.74	21.04	20.14	21.39	21.77	15.76	17.05	16.15	17.40	17.78
	6H	20.22	21.42	20.63	21.79	22.18	16.22	17.42	16.63	17.78	18.18
	8H	20.38	21.52	20.80	21.91	22.31	16.38	17.52	16.80	17.91	18.31
	12H	20.47	21.57	20.90	21.95	22.38	16.49	17.59	16.92	17.97	18.40
4H	2H	17.44	18.74	17.84	19.09	19.47	14.37	15.66	14.76	16.01	16.39
	3H	19.41	20.49	19.82	20.89	21.29	16.04	17.12	16.45	17.52	17.92
	4H	20.16	21.13	20.59	21.54	21.98	16.75	17.72	17.18	18.13	18.57
	6H	20.75	21.60	21.21	22.04	22.50	17.33	18.18	17.79	18.62	19.08
	8H	20.96	21.75	21.42	22.19	22.66	17.54	18.33	18.00	18.78	19.24
	12H	21.10	21.81	21.59	22.29	22.76	17.70	18.41	18.18	18.89	19.36
8H	4H	20.22	21.01	20.68	21.46	21.92	17.11	17.90	17.57	18.35	18.81
	6H	20.88	21.54	21.37	22.03	22.50	17.81	18.47	18.31	18.96	19.44
	8H	21.13	21.72	21.65	22.23	22.72	18.10	18.69	18.61	19.19	19.68
	12H	21.34	21.86	21.85	22.35	22.92	18.34	18.86	18.85	19.35	19.92
12H	4H	20.21	20.92	20.69	21.40	21.87	17.16	17.87	17.64	18.34	18.82
	6H	20.87	21.46	21.39	21.97	22.46	17.88	18.47	18.40	18.98	19.47
	8H	21.17	21.69	21.68	22.18	22.74	18.23	18.75	18.74	19.24	19.80