

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: P1056620

Luminaire Tested: S125R3DR-H850D935-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056620
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-H850D935-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

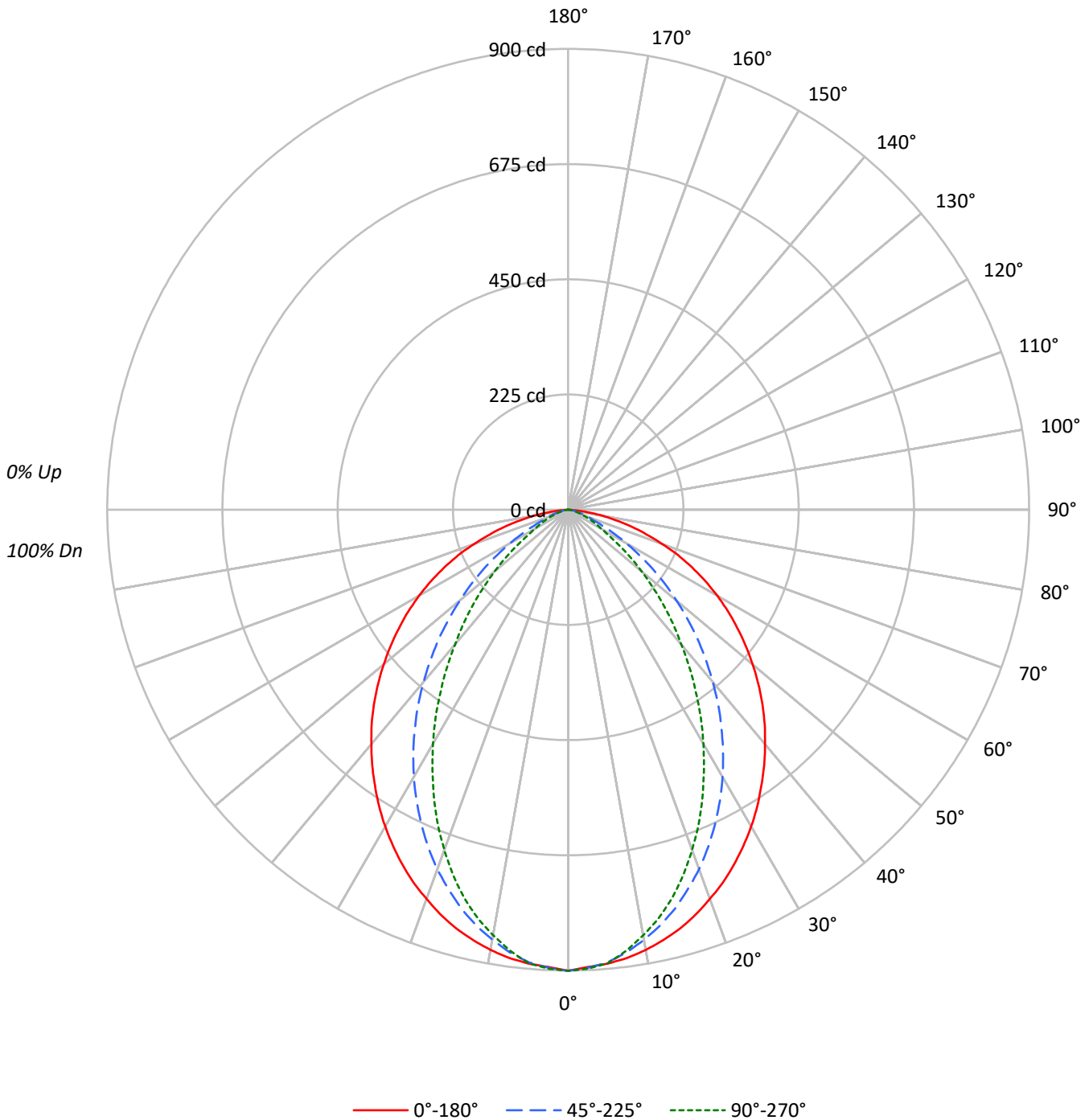
Lumens per Lamp: N/A
Luminaire Lumens: 1627.5 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 23.8
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	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					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°	6366	6366	6366
5°	6313	6295	6307
10°	6267	6122	6057
15°	6194	5901	5742
20°	6085	5620	5319
25°	5970	5288	4838
30°	5832	4921	4308
35°	5677	4504	3749
40°	5517	4048	3170
45°	5360	3568	2625
50°	5171	3035	2063
55°	4973	2466	1500
60°	4751	1839	1073
65°	4463	1213	836
70°	4033	845	585
75°	3507	546	456
80°	2748	407	375
85°	1419	341	268

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5360 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.9	5.2
10°-20°	228.0	14.0
20°-30°	315.3	19.4
30°-40°	334.1	20.5
40°-50°	291.6	17.9
50°-60°	207.4	12.7
60°-70°	115.3	7.1
70°-80°	44.3	2.7
80°-90°	7.7	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°	627.2	38.5
0°-40°	961.2	59.1
0°-60°	1460.2	89.7
0°-90°	1627.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1627.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	900	900	900	900	900	
5°	890	896	887	885	889	84
15°	846	839	806	789	785	238
25°	765	740	678	636	620	352
35°	658	613	522	459	434	412
45°	536	472	357	285	263	413
55°	404	324	200	138	122	361
65°	267	175	72	53	50	264
75°	128	50	20	17	17	136
85°	18	5	4	3	3	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	900.5	900.5	900.5	900.5	900.5
2.5°	893.8	903.0	895.5	896.3	897.1
5°	889.6	896.3	887.1	884.6	888.8
7.5°	883.0	888.0	872.1	866.3	868.8
10°	873.0	874.6	852.9	844.6	843.8
12.5°	860.4	857.9	831.3	817.9	817.1
15°	846.3	838.8	806.3	788.7	784.6
17.5°	828.8	817.1	777.1	754.6	747.9
20°	808.8	792.9	747.1	717.9	707.0
22.5°	788.7	767.1	713.7	677.0	665.3
25°	765.4	739.5	677.9	636.2	620.3
27.5°	740.4	709.5	641.2	592.8	573.6
30°	714.5	678.7	602.8	548.6	527.8
32.5°	687.0	646.2	562.8	503.6	481.9
35°	657.8	612.8	521.9	458.6	434.4
37.5°	628.7	578.6	481.9	414.4	389.4
40°	597.8	543.6	438.6	369.4	343.5
42.5°	567.8	507.8	397.7	326.8	303.5
45°	536.1	471.9	356.9	285.1	262.6
47.5°	503.6	434.4	316.0	246.0	223.4
50°	470.2	397.7	276.0	207.6	187.6
52.5°	436.9	361.0	238.5	170.9	153.4
55°	403.5	323.5	200.1	138.4	121.7
57.5°	370.2	286.8	164.3	108.4	93.4
60°	336.0	249.3	130.1	80.0	75.9
62.5°	301.8	212.6	100.9	65.9	62.5
65°	266.8	175.1	72.5	53.4	50.0
67.5°	231.8	140.9	52.5	40.9	38.4
70°	195.1	107.6	40.9	30.8	28.3
72.5°	160.1	77.5	29.2	22.5	21.7
75°	128.4	50.0	20.0	16.7	16.7
77.5°	96.7	30.0	14.2	12.5	12.5
80°	67.5	17.5	10.0	9.2	9.2
82.5°	40.9	9.2	6.7	5.8	5.8
85°	17.5	5.0	4.2	3.3	3.3
87.5°	3.3	1.7	1.7	1.7	1.7
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	17.59	19.04	17.96	19.35	19.67	10.23	11.68	10.60	11.99	12.30
	3H	19.15	20.44	19.53	20.77	21.13	10.79	12.08	11.17	12.41	12.77
	4H	19.67	20.87	20.07	21.22	21.60	10.92	12.12	11.32	12.47	12.85
	6H	20.01	21.12	20.42	21.48	21.88	10.98	12.09	11.40	12.46	12.85
	8H	20.09	21.14	20.52	21.53	21.94	10.99	12.04	11.42	12.43	12.83
	12H	20.12	21.12	20.55	21.50	21.93	10.98	11.98	11.41	12.37	12.80
4H	2H	17.49	18.69	17.89	19.04	19.42	10.79	12.00	11.20	12.35	12.73
	3H	19.16	20.14	19.57	20.54	20.95	11.47	12.45	11.88	12.86	13.26
	4H	19.70	20.59	20.14	21.00	21.45	11.63	12.51	12.06	12.93	13.37
	6H	20.10	20.86	20.56	21.31	21.77	11.74	12.50	12.20	12.95	13.41
	8H	20.20	20.91	20.67	21.36	21.83	11.75	12.46	12.22	12.91	13.38
	12H	20.25	20.88	20.73	21.36	21.84	11.75	12.38	12.23	12.86	13.34
8H	4H	19.61	20.32	20.07	20.77	21.24	11.89	12.61	12.36	13.05	13.52
	6H	19.99	20.58	20.49	21.07	21.55	12.03	12.61	12.53	13.11	13.59
	8H	20.10	20.63	20.62	21.14	21.63	12.06	12.58	12.57	13.09	13.58
	12H	20.17	20.63	20.68	21.12	21.69	12.08	12.54	12.59	13.03	13.60
12H	4H	19.57	20.20	20.06	20.69	21.16	11.91	12.54	12.39	13.02	13.50
	6H	19.94	20.47	20.46	20.98	21.47	12.04	12.57	12.56	13.08	13.57
	8H	20.07	20.53	20.58	21.03	21.59	12.10	12.56	12.61	13.06	13.62