

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: P1056621

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056621
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-H850D935-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

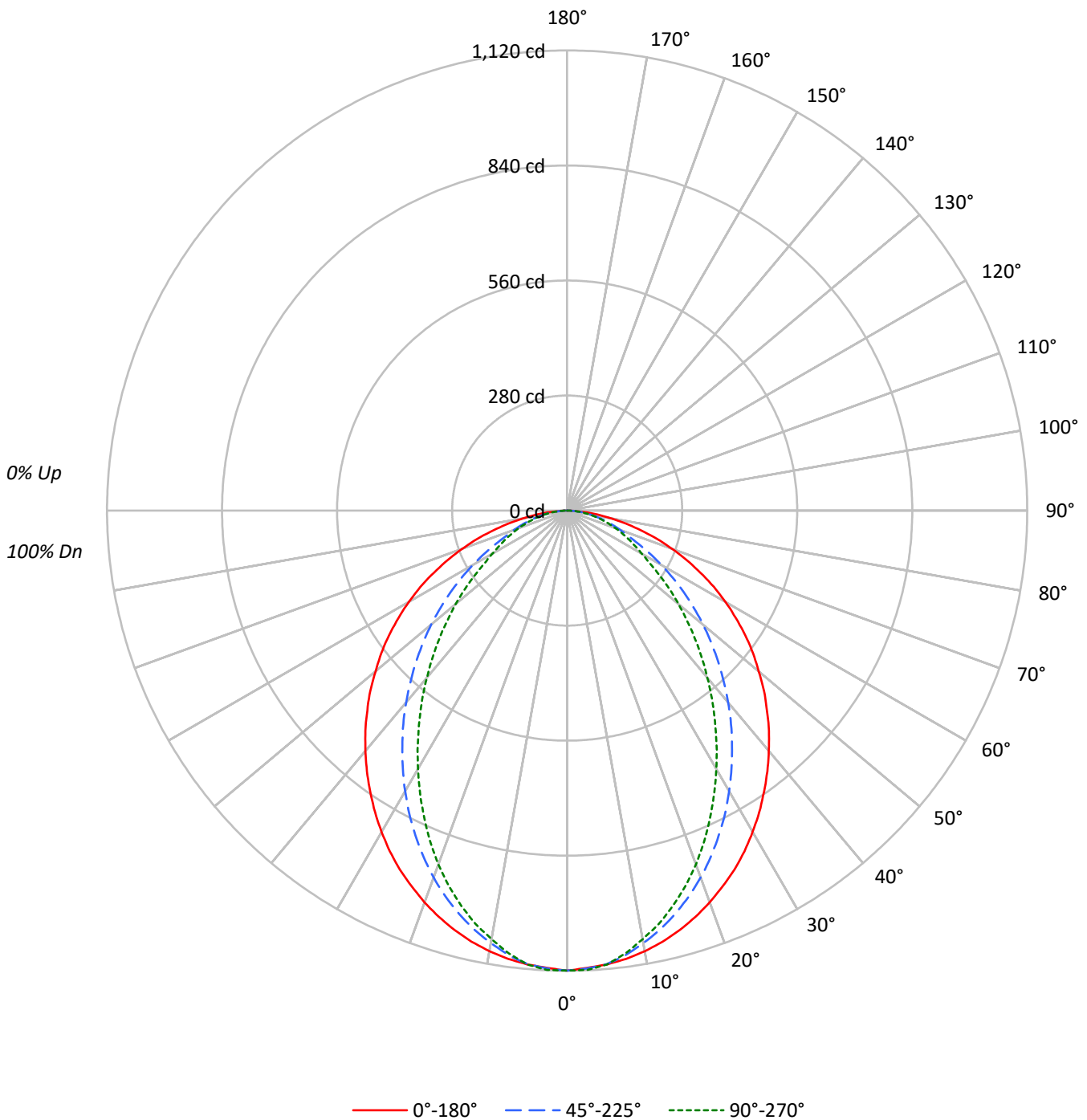
Lumens per Lamp: N/A
Luminaire Lumens: 2373.3 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 23.8
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	31	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7916	7916	7916
5°	7869	7863	7869
10°	7817	7673	7601
15°	7737	7439	7286
20°	7634	7151	6893
25°	7518	6810	6426
30°	7371	6438	5928
35°	7210	6037	5411
40°	7048	5625	4901
45°	6877	5193	4393
50°	6693	4750	3888
55°	6525	4264	3381
60°	6295	3748	2971
65°	5983	3180	2762
70°	5618	2844	2586
75°	5078	2619	2436
80°	4413	2378	2276
85°	3447	2093	2093

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6877 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.8	4.4
10°-20°	287.7	12.1
20°-30°	406.4	17.1
30°-40°	447.3	18.8
40°-50°	417.3	17.6
50°-60°	333.1	14.0
60°-70°	224.2	9.4
70°-80°	119.4	5.0
80°-90°	33.2	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°	798.8	33.7
0°-40°	1246.1	52.5
0°-60°	1996.5	84.1
0°-90°	2373.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2373.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1120	1120	1120	1120	1120	
5°	1109	1118	1108	1105	1109	105
15°	1057	1051	1016	999	996	298
25°	964	935	873	835	824	444
35°	835	786	700	644	627	523
45°	688	623	519	456	439	531
55°	529	449	346	291	274	473
65°	358	279	190	168	165	355
75°	186	123	96	90	89	198
85°	42	29	26	27	26	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1119.7	1119.7	1119.7	1119.7	1119.7
2.5°	1113.9	1123.1	1115.6	1117.2	1118.9
5°	1108.9	1118.1	1108.1	1104.7	1108.9
7.5°	1100.6	1108.1	1091.4	1083.9	1087.2
10°	1088.9	1093.9	1068.9	1058.9	1058.9
12.5°	1074.7	1074.7	1044.7	1030.5	1030.5
15°	1057.2	1051.4	1016.4	998.9	995.5
17.5°	1037.2	1026.4	984.7	962.2	958.0
20°	1014.7	997.2	950.5	921.3	916.3
22.5°	989.7	967.2	913.0	877.1	871.3
25°	963.8	934.7	873.0	834.6	823.8
27.5°	934.7	899.6	832.1	788.7	775.4
30°	903.0	862.9	788.7	740.4	726.2
32.5°	870.5	825.4	744.6	692.9	677.0
35°	835.4	786.2	699.5	644.5	627.0
37.5°	800.4	747.1	655.3	597.8	579.5
40°	763.7	705.4	609.5	550.3	531.1
42.5°	727.0	664.5	564.5	504.4	484.4
45°	687.9	622.8	519.4	456.1	439.4
47.5°	650.3	580.3	475.2	413.5	395.2
50°	608.6	536.1	431.9	370.2	353.5
52.5°	570.3	492.8	388.5	331.0	313.5
55°	529.4	449.4	346.0	291.0	274.3
57.5°	486.9	406.0	305.2	253.5	237.6
60°	445.2	362.7	265.1	217.6	210.1
62.5°	402.7	321.8	227.6	190.9	185.9
65°	357.7	279.3	190.1	168.4	165.1
67.5°	315.2	238.5	160.1	147.6	144.2
70°	271.8	197.6	137.6	126.7	125.1
72.5°	229.3	158.4	115.9	108.4	106.7
75°	185.9	123.4	95.9	90.0	89.2
77.5°	145.9	92.5	75.9	73.4	71.7
80°	108.4	69.2	58.4	56.7	55.9
82.5°	74.2	47.5	41.7	41.7	40.0
85°	42.5	29.2	25.8	26.7	25.8
87.5°	15.8	12.5	11.7	12.5	12.5
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	18.48	20.02	18.84	20.33	20.64	14.86	16.40	15.22	16.71	17.03
	3H	20.26	21.65	20.64	21.97	22.33	16.33	17.72	16.71	18.05	18.41
	4H	20.91	22.21	21.31	22.56	22.94	16.92	18.22	17.32	18.57	18.95
	6H	21.39	22.59	21.80	22.96	23.35	17.39	18.59	17.80	18.95	19.35
	8H	21.55	22.69	21.97	23.08	23.48	17.55	18.69	17.97	19.08	19.48
	12H	21.64	22.74	22.07	23.12	23.55	17.66	18.76	18.09	19.14	19.57
4H	2H	18.61	19.91	19.01	20.26	20.64	15.54	16.83	15.94	17.18	17.56
	3H	20.58	21.66	20.99	22.06	22.46	17.21	18.29	17.62	18.69	19.09
	4H	21.33	22.30	21.76	22.72	23.15	17.92	18.89	18.35	19.30	19.74
	6H	21.92	22.77	22.38	23.21	23.67	18.50	19.35	18.96	19.79	20.25
	8H	22.13	22.92	22.59	23.36	23.83	18.71	19.50	19.17	19.95	20.41
	12H	22.27	22.98	22.76	23.46	23.93	18.87	19.58	19.35	20.06	20.53
8H	4H	21.39	22.18	21.85	22.63	23.09	18.28	19.07	18.74	19.52	19.98
	6H	22.05	22.71	22.54	23.20	23.67	18.98	19.64	19.48	20.13	20.61
	8H	22.30	22.89	22.82	23.40	23.89	19.27	19.86	19.78	20.36	20.85
	12H	22.51	23.03	23.02	23.52	24.09	19.51	20.03	20.02	20.52	21.08
12H	4H	21.38	22.09	21.86	22.57	23.04	18.33	19.04	18.81	19.51	19.99
	6H	22.04	22.63	22.56	23.14	23.63	19.05	19.64	19.57	20.15	20.64
	8H	22.34	22.86	22.85	23.35	23.91	19.40	19.92	19.91	20.41	20.97