

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056615

Luminaire Tested: S125R3DR-H850D927-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056615  
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-H850D927-X4F0-XX-UDD-FLL-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

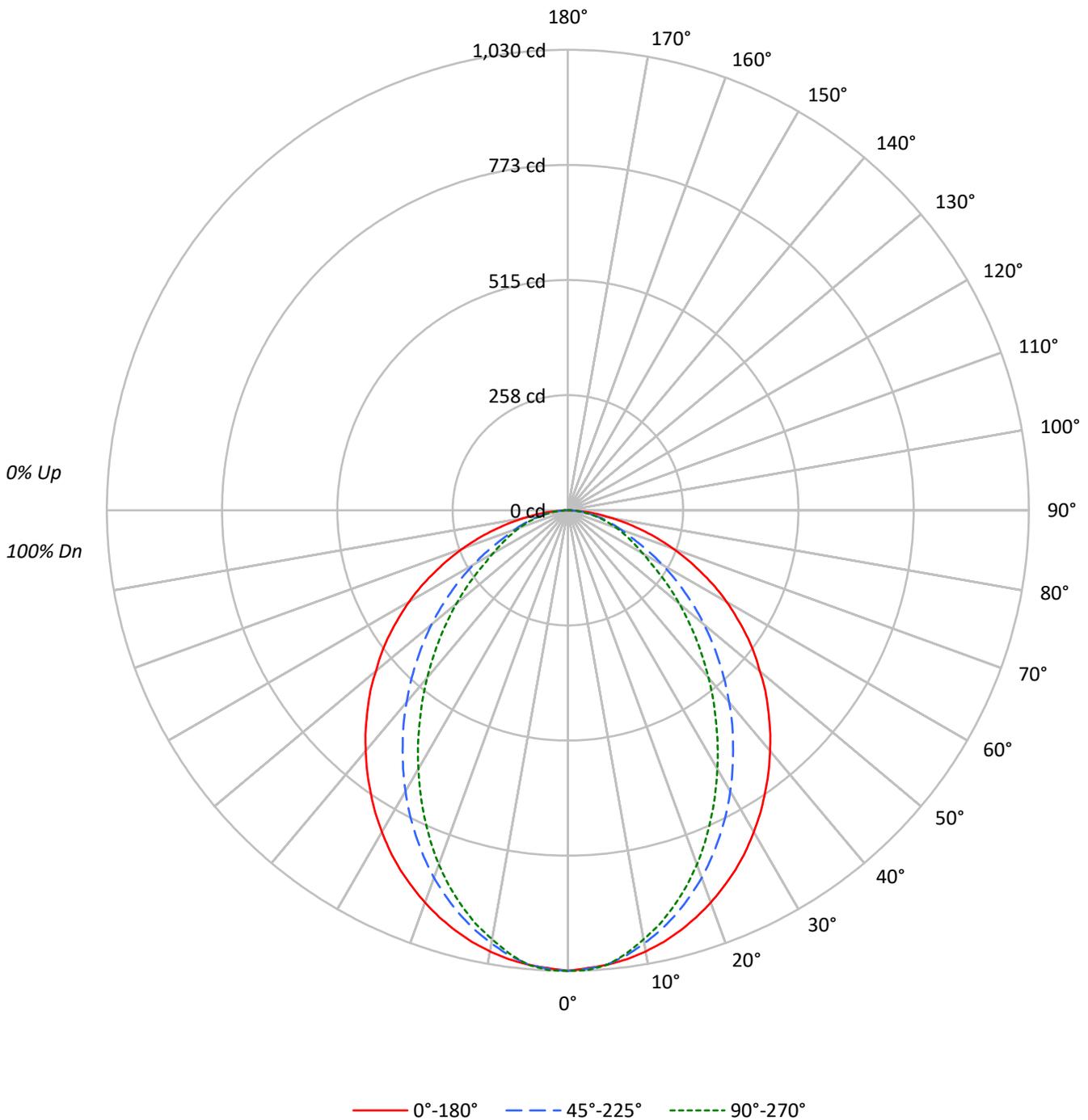
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2183.6 lumens  
Efficiency: N/A  
Efficacy: 91.7 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 (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°	7283	7283	7283
5°	7240	7235	7240
10°	7192	7060	6993
15°	7119	6844	6703
20°	7024	6579	6343
25°	6917	6265	5912
30°	6782	5924	5454
35°	6634	5554	4979
40°	6485	5175	4510
45°	6327	4778	4042
50°	6159	4371	3578
55°	6004	3924	3111
60°	5791	3448	2733
65°	5505	2926	2541
70°	5169	2617	2379
75°	4673	2409	2242
80°	4059	2186	2093
85°	3171	1930	1930

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6327 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.4	4.4
10°-20°	264.7	12.1
20°-30°	373.9	17.1
30°-40°	411.6	18.8
40°-50°	383.9	17.6
50°-60°	306.5	14.0
60°-70°	206.3	9.4
70°-80°	109.9	5.0
80°-90°	30.5	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°	734.9	33.7
0°-40°	1146.5	52.5
0°-60°	1837.0	84.1
0°-90°	2183.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2183.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1030	1030	1030	1030	1030	
5°	1020	1029	1020	1016	1020	97
15°	973	967	935	919	916	274
25°	887	860	803	768	758	408
35°	769	723	644	593	577	481
45°	633	573	478	420	404	489
55°	487	414	318	268	252	435
65°	329	257	175	155	152	326
75°	171	114	88	83	82	182
85°	39	27	24	24	24	47
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1030.2	1030.2	1030.2	1030.2	1030.2
2.5°	1024.9	1033.3	1026.4	1027.9	1029.5
5°	1020.3	1028.7	1019.5	1016.4	1020.3
7.5°	1012.6	1019.5	1004.2	997.3	1000.3
10°	1001.9	1006.5	983.5	974.2	974.2
12.5°	988.8	988.8	961.2	948.2	948.2
15°	972.7	967.3	935.1	919.0	915.9
17.5°	954.3	944.3	906.0	885.3	881.4
20°	933.6	917.5	874.5	847.7	843.1
22.5°	910.6	889.9	840.0	807.0	801.6
25°	886.8	859.9	803.2	767.9	757.9
27.5°	859.9	827.7	765.6	725.7	713.4
30°	830.8	794.0	725.7	681.2	668.2
32.5°	800.9	759.5	685.0	637.5	622.9
35°	768.7	723.4	643.6	593.0	576.9
37.5°	736.4	687.3	603.0	550.0	533.2
40°	702.7	649.0	560.8	506.3	488.7
42.5°	668.9	611.4	519.3	464.1	445.7
45°	632.9	573.0	477.9	419.6	404.3
47.5°	598.4	533.9	437.3	380.5	363.6
50°	560.0	493.3	397.4	340.6	325.3
52.5°	524.7	453.4	357.5	304.5	288.4
55°	487.1	413.5	318.4	267.7	252.4
57.5°	448.0	373.6	280.8	233.2	218.6
60°	409.6	333.7	243.9	200.2	193.3
62.5°	370.5	296.1	209.4	175.7	171.1
65°	329.1	257.0	174.9	155.0	151.9
67.5°	290.0	219.4	147.3	135.8	132.7
70°	250.1	181.8	126.6	116.6	115.1
72.5°	211.0	145.8	106.6	99.7	98.2
75°	171.1	113.5	88.2	82.8	82.1
77.5°	134.2	85.2	69.8	67.5	66.0
80°	99.7	63.7	53.7	52.2	51.4
82.5°	68.3	43.7	38.4	38.4	36.8
85°	39.1	26.8	23.8	24.5	23.8
87.5°	14.6	11.5	10.7	11.5	11.5
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	18.19	19.73	18.55	20.04	20.35	14.57	16.11	14.93	16.42	16.74
	3H	19.97	21.36	20.35	21.68	22.05	16.05	17.43	16.42	17.76	18.12
	4H	20.63	21.92	21.03	22.27	22.65	16.64	17.93	17.03	18.28	18.66
	6H	21.10	22.30	21.51	22.67	23.06	17.10	18.30	17.51	18.67	19.06
	8H	21.26	22.40	21.68	22.79	23.19	17.26	18.40	17.68	18.79	19.19
	12H	21.35	22.45	21.78	22.83	23.26	17.37	18.47	17.80	18.85	19.28
4H	2H	18.32	19.62	18.72	19.97	20.35	15.25	16.54	15.65	16.89	17.27
	3H	20.29	21.37	20.70	21.77	22.17	16.92	18.00	17.33	18.40	18.80
	4H	21.04	22.01	21.47	22.43	22.86	17.63	18.60	18.06	19.01	19.45
	6H	21.63	22.48	22.09	22.92	23.38	18.21	19.06	18.67	19.50	19.96
	8H	21.84	22.63	22.30	23.07	23.54	18.42	19.21	18.88	19.66	20.12
	12H	21.98	22.69	22.47	23.17	23.64	18.58	19.29	19.06	19.77	20.24
8H	4H	21.10	21.89	21.56	22.34	22.80	17.99	18.78	18.45	19.23	19.69
	6H	21.76	22.42	22.26	22.91	23.38	18.69	19.35	19.19	19.84	20.32
	8H	22.01	22.60	22.53	23.11	23.60	18.98	19.57	19.49	20.07	20.56
	12H	22.22	22.74	22.73	23.23	23.80	19.22	19.74	19.73	20.23	20.79
12H	4H	21.09	21.80	21.58	22.28	22.75	18.04	18.75	18.52	19.22	19.70
	6H	21.75	22.34	22.27	22.85	23.34	18.76	19.35	19.28	19.86	20.35
	8H	22.05	22.57	22.56	23.06	23.63	19.11	19.63	19.62	20.12	20.68