

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: P1056558

Luminaire Tested: S125R3DR-H375D850-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056558  
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-H375D850-X4F0-XX-UDD-FLL-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

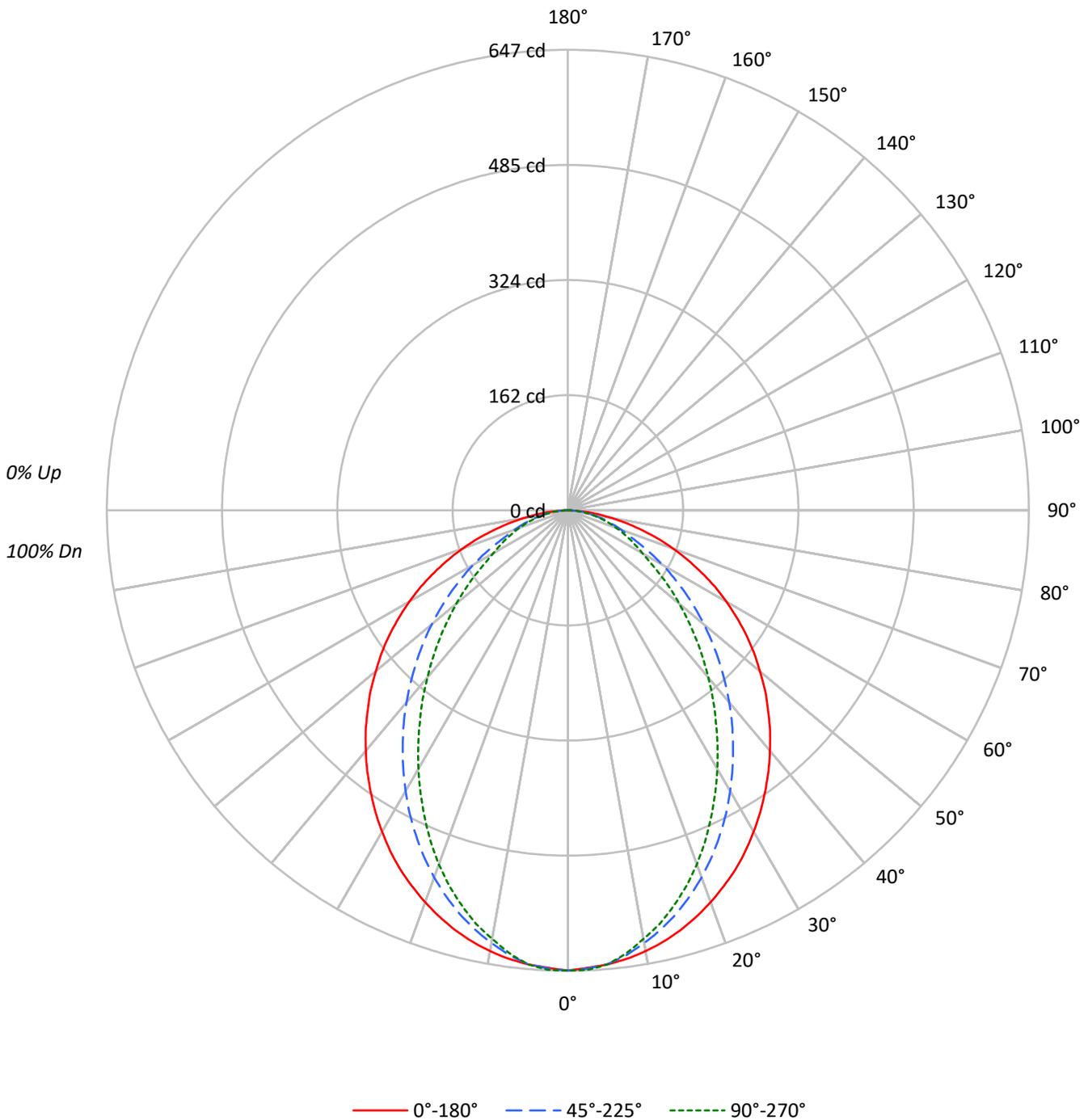
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1370.6 lumens  
Efficiency: N/A  
Efficacy: 117.1 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): 11.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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°	4572	4572	4572
5°	4544	4541	4544
10°	4514	4431	4390
15°	4469	4296	4208
20°	4408	4129	3981
25°	4342	3933	3711
30°	4257	3718	3424
35°	4164	3487	3125
40°	4071	3248	2830
45°	3972	2999	2537
50°	3866	2743	2246
55°	3769	2463	1952
60°	3635	2165	1715
65°	3456	1837	1594
70°	3245	1643	1492
75°	2934	1513	1407
80°	2548	1372	1315
85°	1995	1209	1209

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3972 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.5	4.4
10°-20°	166.1	12.1
20°-30°	234.7	17.1
30°-40°	258.4	18.8
40°-50°	241.0	17.6
50°-60°	192.4	14.0
60°-70°	129.5	9.4
70°-80°	69.0	5.0
80°-90°	19.2	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°	461.3	33.7
0°-40°	719.7	52.5
0°-60°	1153.1	84.1
0°-90°	1370.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1370.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	647	647	647	647	647	
5°	640	646	640	638	640	61
15°	611	607	587	577	575	172
25°	557	540	504	482	476	256
35°	482	454	404	372	362	302
45°	397	360	300	263	254	307
55°	306	260	200	168	158	273
65°	207	161	110	97	95	205
75°	107	71	55	52	52	114
85°	25	17	15	15	15	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	646.7	646.7	646.7	646.7	646.7
2.5°	643.3	648.6	644.3	645.2	646.2
5°	640.4	645.7	639.9	638.0	640.4
7.5°	635.6	639.9	630.3	626.0	627.9
10°	628.9	631.8	617.3	611.5	611.5
12.5°	620.7	620.7	603.3	595.2	595.2
15°	610.6	607.2	587.0	576.9	574.9
17.5°	599.0	592.8	568.7	555.7	553.3
20°	586.0	575.9	548.9	532.1	529.2
22.5°	571.6	558.6	527.3	506.6	503.2
25°	556.6	539.8	504.2	482.0	475.7
27.5°	539.8	519.6	480.6	455.5	447.8
30°	521.5	498.4	455.5	427.6	419.4
32.5°	502.7	476.7	430.0	400.1	391.0
35°	482.5	454.1	404.0	372.2	362.1
37.5°	462.3	431.4	378.5	345.2	334.7
40°	441.1	407.4	352.0	317.8	306.7
42.5°	419.9	383.8	326.0	291.3	279.8
45°	397.3	359.7	300.0	263.4	253.8
47.5°	375.6	335.1	274.5	238.8	228.2
50°	351.5	309.6	249.4	213.8	204.2
52.5°	329.4	284.6	224.4	191.2	181.1
55°	305.8	259.5	199.8	168.1	158.4
57.5°	281.2	234.5	176.2	146.4	137.2
60°	257.1	209.5	153.1	125.7	121.3
62.5°	232.6	185.9	131.5	110.3	107.4
65°	206.6	161.3	109.8	97.3	95.3
67.5°	182.0	137.7	92.5	85.2	83.3
70°	157.0	114.1	79.5	73.2	72.2
72.5°	132.4	91.5	66.9	62.6	61.6
75°	107.4	71.3	55.4	52.0	51.5
77.5°	84.3	53.4	43.8	42.4	41.4
80°	62.6	40.0	33.7	32.7	32.3
82.5°	42.9	27.4	24.1	24.1	23.1
85°	24.6	16.9	14.9	15.4	14.9
87.5°	9.1	7.2	6.7	7.2	7.2
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	16.57	18.11	16.93	18.42	18.74	12.95	14.49	13.32	14.80	15.12
	3H	18.35	19.74	18.73	20.07	20.43	14.43	15.81	14.80	16.14	16.50
	4H	19.01	20.31	19.41	20.65	21.03	15.02	16.32	15.42	16.66	17.04
	6H	19.48	20.69	19.90	21.05	21.44	15.48	16.68	15.89	17.05	17.44
	8H	19.64	20.78	20.06	21.17	21.57	15.64	16.78	16.07	17.17	17.57
	12H	19.73	20.83	20.16	21.21	21.64	15.75	16.85	16.18	17.23	17.66
4H	2H	16.70	18.00	17.10	18.35	18.73	13.63	14.93	14.03	15.28	15.65
	3H	18.67	19.75	19.08	20.15	20.55	15.31	16.39	15.72	16.79	17.19
	4H	19.42	20.39	19.85	20.81	21.25	16.01	16.98	16.44	17.40	17.83
	6H	20.01	20.86	20.47	21.30	21.76	16.59	17.44	17.05	17.88	18.34
	8H	20.22	21.01	20.68	21.46	21.92	16.80	17.59	17.26	18.04	18.51
	12H	20.37	21.08	20.85	21.55	22.03	16.96	17.67	17.44	18.15	18.62
8H	4H	19.48	20.28	19.95	20.72	21.19	16.37	17.17	16.83	17.61	18.08
	6H	20.14	20.80	20.64	21.29	21.77	17.07	17.73	17.57	18.22	18.70
	8H	20.40	20.98	20.91	21.49	21.98	17.36	17.95	17.87	18.46	18.94
	12H	20.60	21.13	21.11	21.62	22.18	17.60	18.12	18.11	18.61	19.18
12H	4H	19.48	20.18	19.96	20.66	21.13	16.42	17.13	16.90	17.61	18.08
	6H	20.14	20.73	20.65	21.24	21.72	17.15	17.74	17.66	18.24	18.73
	8H	20.43	20.95	20.94	21.44	22.01	17.49	18.01	18.00	18.50	19.07