

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: P1056619

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

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056619  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)  
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-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

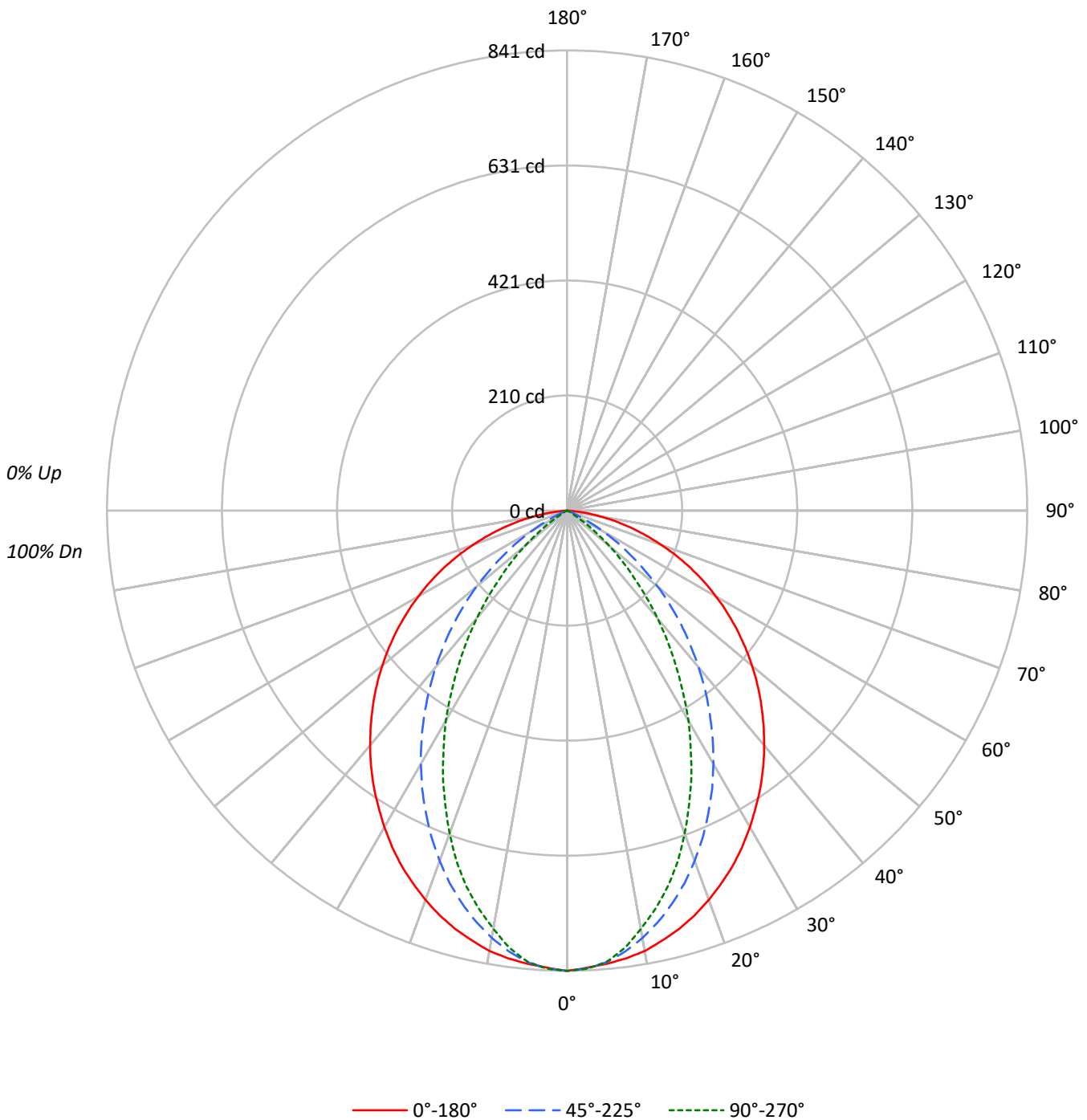
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1363.6 lumens  
Efficiency: N/A  
Efficacy: 57.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07  
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<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	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	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78					78			
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69					69			
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61					61			
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55					55			
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49					49			
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45					45			
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5947	5947	5947
5°	5899	5881	5875
10°	5865	5692	5572
15°	5791	5437	5205
20°	5696	5125	4723
25°	5586	4760	4188
30°	5451	4362	3621
35°	5318	3922	2993
40°	5171	3447	2370
45°	5018	2942	1718
50°	4851	2374	1110
55°	4665	1737	493
60°	4444	1073	141
65°	4170	390	84
70°	3774	138	35
75°	3280	46	22
80°	2512	33	0
85°	1152	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5018 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.1	5.7
10°-20°	209.8	15.4
20°-30°	283.8	20.8
30°-40°	291.6	21.4
40°-50°	241.6	17.7
50°-60°	155.1	11.4
60°-70°	74.9	5.5
70°-80°	25.3	1.9
80°-90°	3.3	0.2
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°	571.8	41.9
0°-40°	863.4	63.3
0°-60°	1260.1	92.4
0°-90°	1363.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1363.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	841	841	841	841	841	
5°	831	838	829	824	828	79
15°	791	781	743	717	711	223
25°	716	681	610	555	537	330
35°	616	557	454	375	347	385
45°	502	419	294	203	172	387
55°	378	278	141	62	40	338
65°	249	138	23	7	5	247
75°	120	26	2	1	1	127
85°	14	0	0	0	0	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	841.3	841.3	841.3	841.3	841.3
2.5°	836.3	842.9	837.1	836.3	837.9
5°	831.3	837.9	828.8	823.8	827.9
7.5°	825.4	828.8	812.9	804.6	806.3
10°	817.1	816.3	792.9	778.7	776.2
12.5°	804.6	800.4	769.6	749.6	745.4
15°	791.2	781.2	742.9	717.0	711.2
17.5°	775.4	759.6	713.7	680.4	672.0
20°	757.1	735.4	681.2	640.3	627.8
22.5°	737.0	709.5	647.0	598.6	582.0
25°	716.2	681.2	610.3	555.3	536.9
27.5°	692.9	652.0	573.6	511.1	488.6
30°	667.8	621.2	534.4	466.1	443.6
32.5°	642.0	590.3	495.3	421.1	393.5
35°	616.2	557.0	454.4	375.2	346.8
37.5°	588.6	523.6	414.4	331.8	301.0
40°	560.3	489.4	373.5	286.8	256.8
42.5°	531.1	454.4	332.7	244.3	213.4
45°	501.9	419.4	294.3	203.4	171.8
47.5°	471.9	383.5	254.3	163.4	135.9
50°	441.1	348.5	215.9	127.6	100.9
52.5°	410.2	312.7	176.8	92.5	68.4
55°	378.5	277.6	140.9	61.7	40.0
57.5°	346.8	241.8	107.6	34.2	15.0
60°	314.3	207.6	75.9	11.7	10.0
62.5°	282.6	170.9	47.5	9.2	7.5
65°	249.3	137.6	23.3	6.7	5.0
67.5°	216.8	105.9	10.0	4.2	2.5
70°	182.6	76.7	6.7	2.5	1.7
72.5°	150.9	49.2	4.2	1.7	0.8
75°	120.1	25.8	1.7	0.8	0.8
77.5°	90.0	10.8	0.8	0.8	0.8
80°	61.7	5.0	0.8	0.8	0.0
82.5°	36.7	1.7	0.8	0.8	0.0
85°	14.2	0.0	0.0	0.0	0.0
87.5°	0.8	0.0	0.0	0.0	0.0
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	17.26	18.65	17.63	18.96	19.28	2.13	3.52	2.50	3.83	4.14
	3H	18.81	20.04	19.19	20.37	20.73	2.05	3.28	2.43	3.61	3.97
	4H	19.34	20.48	19.74	20.83	21.21	1.99	3.13	2.39	3.48	3.86
	6H	19.67	20.73	20.09	21.10	21.49	1.92	2.97	2.33	3.34	3.73
	8H	19.76	20.75	20.19	21.14	21.55	1.88	2.87	2.30	3.26	3.67
	12H	19.77	20.73	20.21	21.11	21.54	1.84	2.79	2.27	3.17	3.60
4H	2H	17.07	18.21	17.47	18.56	18.94	2.99	4.14	3.39	4.49	4.87
	3H	18.68	19.61	19.09	20.02	20.42	2.94	3.87	3.35	4.28	4.68
	4H	19.20	20.04	19.64	20.45	20.90	2.86	3.70	3.30	4.11	4.56
	6H	19.58	20.30	20.04	20.74	21.21	2.80	3.52	3.26	3.96	4.43
	8H	19.68	20.35	20.14	20.79	21.26	2.75	3.42	3.21	3.86	4.33
	12H	19.71	20.31	20.20	20.79	21.26	2.70	3.30	3.19	3.78	4.25
8H	4H	19.08	19.75	19.54	20.19	20.66	3.88	4.55	4.35	5.00	5.47
	6H	19.43	19.98	19.93	20.47	20.95	3.80	4.35	4.30	4.84	5.32
	8H	19.52	20.02	20.05	20.53	21.02	3.75	4.24	4.27	4.75	5.24
	12H	19.57	20.00	20.08	20.50	21.07	3.71	4.14	4.22	4.64	5.21
12H	4H	19.03	19.63	19.52	20.11	20.58	3.96	4.56	4.45	5.04	5.51
	6H	19.37	19.86	19.89	20.38	20.87	3.86	4.36	4.38	4.87	5.36
	8H	19.48	19.92	20.00	20.41	20.98	3.83	4.26	4.34	4.76	5.33