

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: P1056529

Luminaire Tested: S125R3DR-H1270D850-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056529  
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-H1270D850-X4F0-XX-UDD-F-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

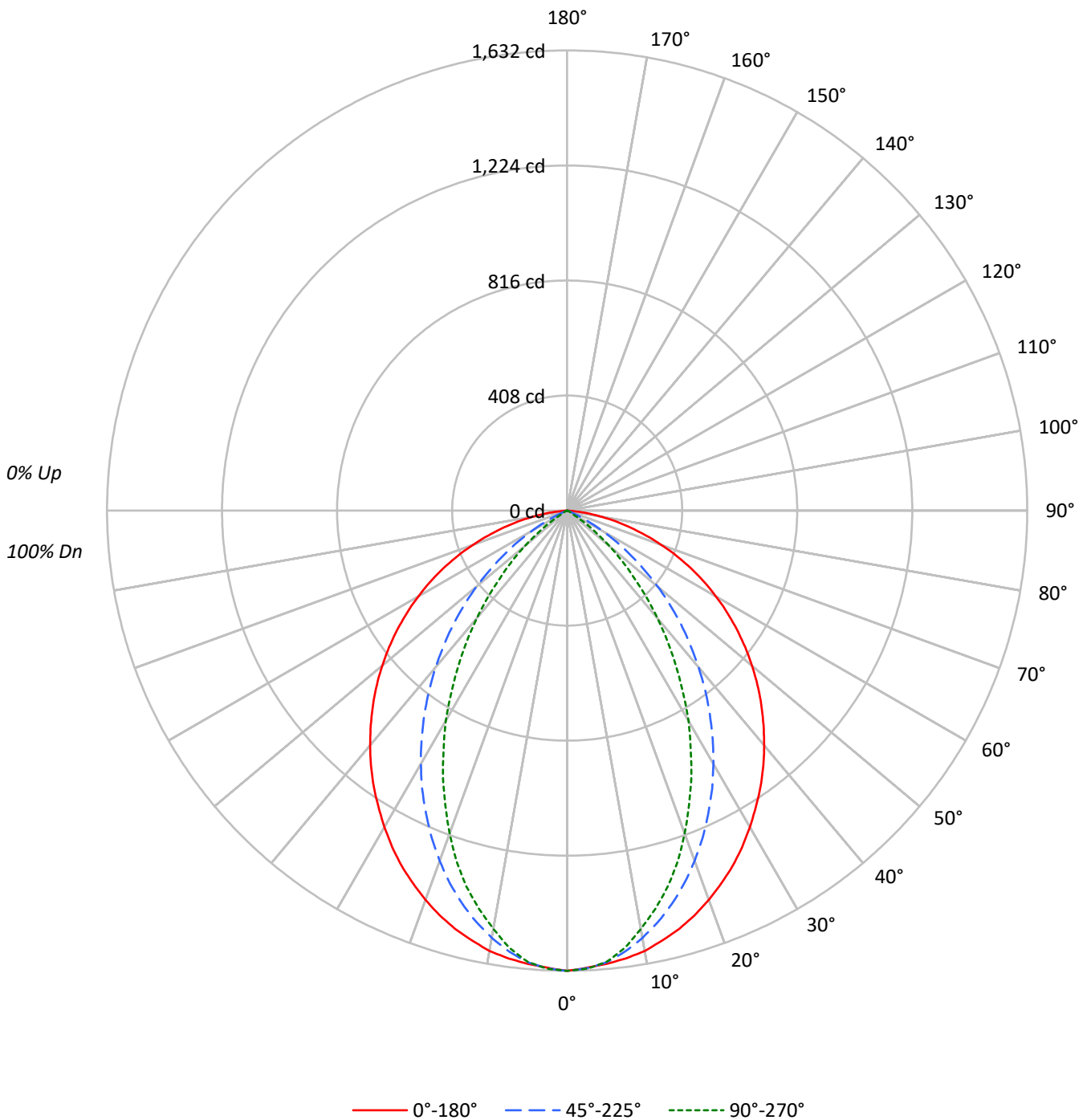
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2646.0 lumens  
Efficiency: N/A  
Efficacy: 72.3 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): 36.6  
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	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°	11541	11541	11541
5°	11447	11412	11401
10°	11381	11045	10813
15°	11237	10551	10101
20°	11052	9944	9165
25°	10841	9238	8127
30°	10578	8466	7026
35°	10318	7610	5808
40°	10033	6689	4598
45°	9738	5710	3332
50°	9413	4608	2153
55°	9053	3370	958
60°	8623	2081	274
65°	8093	758	162
70°	7323	267	66
75°	6364	87	44
80°	4873	65	0
85°	2231	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9738 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.6	5.7
10°-20°	407.1	15.4
20°-30°	550.8	20.8
30°-40°	565.8	21.4
40°-50°	468.8	17.7
50°-60°	301.0	11.4
60°-70°	145.4	5.5
70°-80°	49.2	1.9
80°-90°	6.3	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°	1109.6	41.9
0°-40°	1675.4	63.3
0°-60°	2445.1	92.4
0°-90°	2646.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2646.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1632	1632	1632	1632	1632	
5°	1613	1626	1608	1598	1607	153
15°	1535	1516	1442	1391	1380	433
25°	1390	1322	1184	1078	1042	640
35°	1196	1081	882	728	673	747
45°	974	814	571	395	333	751
55°	734	539	273	120	78	656
65°	484	267	45	13	10	479
75°	233	50	3	2	2	247
85°	28	0	0	0	0	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1632.5	1632.5	1632.5	1632.5	1632.5
2.5°	1622.8	1635.7	1624.4	1622.8	1626.0
5°	1613.1	1626.0	1608.2	1598.5	1606.6
7.5°	1601.7	1608.2	1577.5	1561.3	1564.5
10°	1585.5	1583.9	1538.6	1511.1	1506.3
12.5°	1561.3	1553.2	1493.3	1454.5	1446.4
15°	1535.4	1516.0	1441.6	1391.4	1380.1
17.5°	1504.7	1473.9	1384.9	1320.2	1304.0
20°	1469.1	1427.0	1321.8	1242.6	1218.3
22.5°	1430.2	1376.8	1255.5	1161.7	1129.3
25°	1389.8	1321.8	1184.3	1077.5	1041.9
27.5°	1344.5	1265.2	1113.1	991.8	948.1
30°	1295.9	1205.3	1037.1	904.4	860.7
32.5°	1245.8	1145.5	961.0	817.0	763.7
35°	1195.6	1080.8	881.8	728.1	673.0
37.5°	1142.2	1016.0	804.1	643.9	584.1
40°	1087.2	949.7	724.8	556.6	498.3
42.5°	1030.6	881.8	645.5	474.0	414.2
45°	974.0	813.8	571.1	394.8	333.3
47.5°	915.7	744.2	493.5	317.1	263.7
50°	855.9	676.3	419.0	247.5	195.8
52.5°	796.0	606.7	343.0	179.6	132.7
55°	734.5	538.8	273.4	119.7	77.7
57.5°	673.0	469.2	208.7	66.3	29.1
60°	609.9	402.9	147.2	22.7	19.4
62.5°	548.5	331.7	92.2	17.8	14.6
65°	483.8	267.0	45.3	12.9	9.7
67.5°	420.7	205.5	19.4	8.1	4.9
70°	354.3	148.8	12.9	4.9	3.2
72.5°	292.8	95.5	8.1	3.2	1.6
75°	233.0	50.2	3.2	1.6	1.6
77.5°	174.7	21.0	1.6	1.6	1.6
80°	119.7	9.7	1.6	1.6	0.0
82.5°	71.2	3.2	1.6	1.6	0.0
85°	27.5	0.0	0.0	0.0	0.0
87.5°	1.6	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	19.57	20.95	19.93	21.26	21.58	4.43	5.81	4.79	6.13	6.44
	3H	21.12	22.34	21.50	22.67	23.04	4.35	5.58	4.73	5.91	6.27
	4H	21.64	22.78	22.04	23.13	23.52	4.28	5.43	4.69	5.78	6.16
	6H	21.98	23.03	22.39	23.40	23.79	4.21	5.27	4.63	5.63	6.03
	8H	22.06	23.06	22.49	23.45	23.85	4.17	5.17	4.60	5.56	5.96
	12H	22.08	23.03	22.51	23.41	23.84	4.13	5.09	4.56	5.47	5.90
4H	2H	19.37	20.51	19.77	20.86	21.25	5.29	6.44	5.69	6.79	7.17
	3H	20.98	21.92	21.40	22.32	22.72	5.24	6.18	5.65	6.58	6.98
	4H	21.51	22.34	21.94	22.76	23.20	5.16	6.00	5.60	6.42	6.86
	6H	21.88	22.60	22.34	23.05	23.51	5.10	5.82	5.56	6.26	6.73
	8H	21.98	22.65	22.45	23.10	23.57	5.05	5.72	5.52	6.16	6.64
	12H	22.01	22.61	22.50	23.09	23.56	5.01	5.60	5.49	6.08	6.55
8H	4H	21.38	22.05	21.85	22.50	22.97	6.19	6.86	6.65	7.30	7.77
	6H	21.73	22.28	22.23	22.78	23.26	6.10	6.65	6.60	7.15	7.63
	8H	21.83	22.32	22.35	22.83	23.33	6.05	6.54	6.57	7.06	7.55
	12H	21.87	22.31	22.38	22.80	23.37	6.01	6.44	6.52	6.94	7.51
12H	4H	21.34	21.93	21.82	22.41	22.88	6.26	6.86	6.75	7.34	7.81
	6H	21.67	22.17	22.19	22.68	23.17	6.17	6.66	6.69	7.17	7.66
	8H	21.79	22.22	22.30	22.72	23.29	6.13	6.57	6.65	7.06	7.63