

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: P1056396

Luminaire Tested: S125R3DR-S1270D850-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056396  
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-S1270D850-X4F0-XX-UDD-F-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

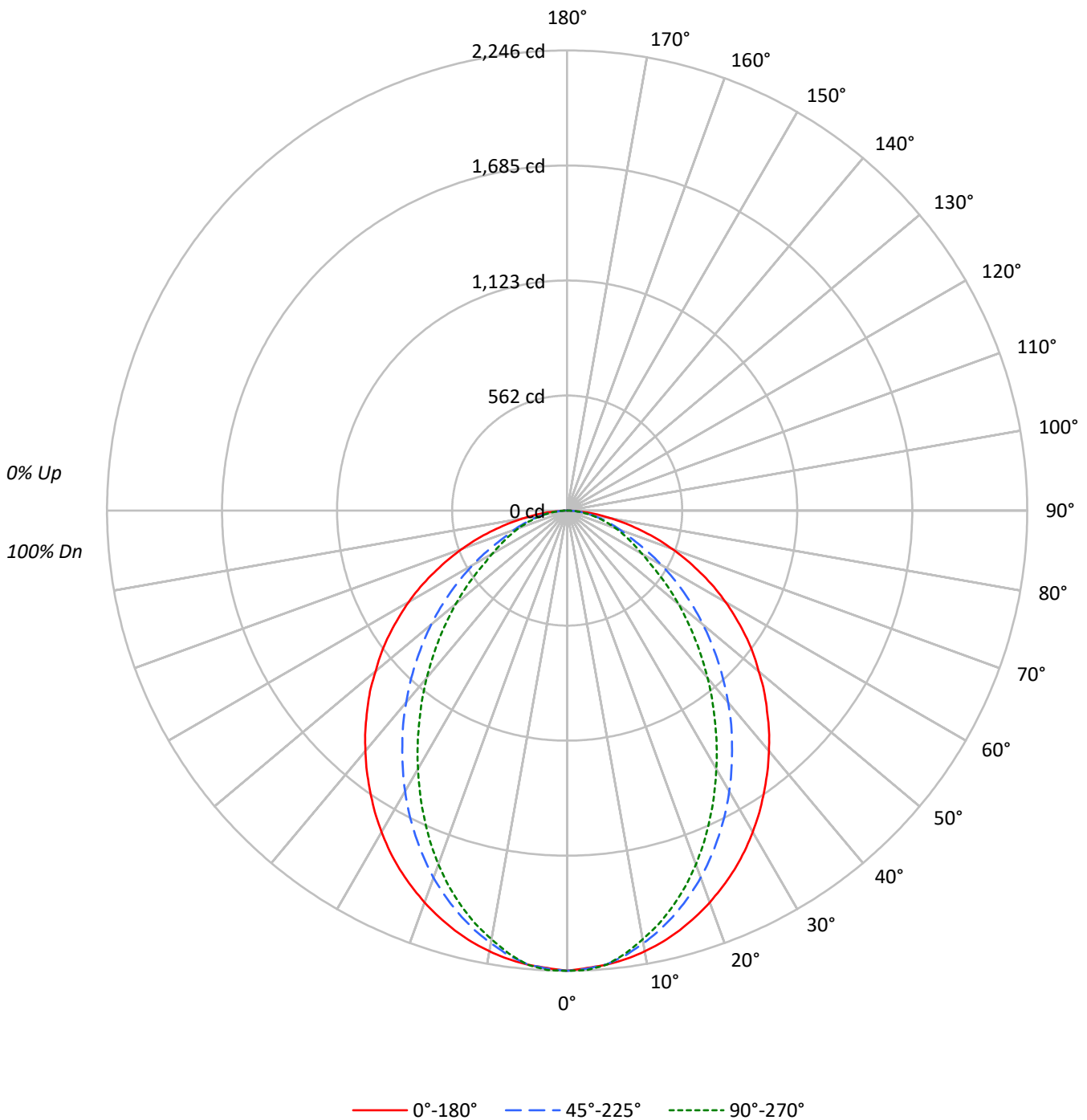
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4760.8 lumens  
Efficiency: N/A  
Efficacy: 113.6 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): 41.9  
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30

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

	0°	45°	90°
0°	15879	15879	15879
5°	15786	15774	15786
10°	15680	15392	15248
15°	15522	14921	14615
20°	15313	14344	13828
25°	15082	13660	12890
30°	14786	12915	11892
35°	14463	12111	10855
40°	14138	11283	9832
45°	13795	10417	8812
50°	13428	9529	7800
55°	13090	8555	6782
60°	12627	7520	5959
65°	12002	6378	5540
70°	11269	5705	5186
75°	10188	5252	4889
80°	8851	4767	4564
85°	6919	4202	4202

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13795 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.2	4.4
10°-20°	577.1	12.1
20°-30°	815.1	17.1
30°-40°	897.4	18.8
40°-50°	837.1	17.6
50°-60°	668.2	14.0
60°-70°	449.7	9.4
70°-80°	239.5	5.0
80°-90°	66.6	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°	1602.4	33.7
0°-40°	2499.8	52.5
0°-60°	4005.1	84.1
0°-90°	4760.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4760.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2246	2246	2246	2246	2246	
5°	2224	2243	2223	2216	2224	211
15°	2121	2109	2039	2004	1997	598
25°	1934	1875	1751	1674	1652	890
35°	1676	1577	1403	1293	1258	1049
45°	1380	1249	1042	915	881	1065
55°	1062	902	694	584	550	948
65°	718	560	381	338	331	712
75°	373	248	192	181	179	397
85°	85	58	52	54	52	102
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2246.2	2246.2	2246.2	2246.2	2246.2
2.5°	2234.5	2252.9	2237.9	2241.2	2244.6
5°	2224.5	2242.9	2222.8	2216.1	2224.5
7.5°	2207.8	2222.8	2189.4	2174.3	2181.0
10°	2184.3	2194.4	2144.2	2124.1	2124.1
12.5°	2155.9	2155.9	2095.7	2067.3	2067.3
15°	2120.8	2109.1	2038.8	2003.7	1997.0
17.5°	2080.6	2058.9	1975.3	1930.1	1921.8
20°	2035.5	2000.4	1906.7	1848.2	1838.1
22.5°	1985.3	1940.1	1831.4	1759.5	1747.8
25°	1933.5	1874.9	1751.2	1674.2	1652.5
27.5°	1874.9	1804.7	1669.2	1582.2	1555.5
30°	1811.4	1731.1	1582.2	1485.2	1456.8
32.5°	1746.1	1655.8	1493.6	1389.9	1358.1
35°	1675.9	1577.2	1403.3	1292.9	1257.8
37.5°	1605.6	1498.6	1314.6	1199.2	1162.4
40°	1532.0	1415.0	1222.6	1103.9	1065.4
42.5°	1458.5	1333.0	1132.3	1011.9	971.7
45°	1379.8	1249.4	1042.0	914.9	881.4
47.5°	1304.6	1164.1	953.3	829.6	792.8
50°	1221.0	1075.4	866.4	742.6	709.2
52.5°	1144.0	988.5	779.4	664.0	628.9
55°	1062.1	901.5	694.1	583.7	550.3
57.5°	976.8	814.5	612.2	508.5	476.7
60°	893.1	727.6	531.9	436.5	421.5
62.5°	807.8	645.6	456.6	383.0	373.0
65°	717.5	560.3	381.3	337.9	331.2
67.5°	632.2	478.3	321.1	296.0	289.3
70°	545.2	396.4	276.0	254.2	250.9
72.5°	459.9	317.8	232.5	217.4	214.1
75°	373.0	247.5	192.3	180.6	179.0
77.5°	292.7	185.7	152.2	147.2	143.8
80°	217.4	138.8	117.1	113.7	112.1
82.5°	148.9	95.3	83.6	83.6	80.3
85°	85.3	58.5	51.8	53.5	51.8
87.5°	31.8	25.1	23.4	25.1	25.1
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	20.89	22.43	21.26	22.75	23.06	17.28	18.82	17.64	19.13	19.45
	3H	22.68	24.06	23.06	24.39	24.75	18.75	20.14	19.13	20.46	20.83
	4H	23.33	24.63	23.73	24.98	25.36	19.34	20.64	19.74	20.99	21.37
	6H	23.81	25.01	24.22	25.38	25.77	19.81	21.01	20.22	21.37	21.76
	8H	23.96	25.11	24.39	25.50	25.90	19.97	21.11	20.39	21.50	21.90
	12H	24.06	25.16	24.49	25.54	25.97	20.08	21.18	20.51	21.56	21.99
4H	2H	21.03	22.33	21.43	22.68	23.05	17.95	19.25	18.35	19.60	19.98
	3H	23.00	24.08	23.41	24.48	24.88	19.63	20.71	20.04	21.11	21.51
	4H	23.74	24.72	24.18	25.13	25.57	20.33	21.31	20.77	21.72	22.16
	6H	24.34	25.19	24.80	25.63	26.09	20.92	21.77	21.38	22.21	22.67
	8H	24.55	25.34	25.01	25.78	26.25	21.13	21.92	21.59	22.36	22.83
	12H	24.69	25.40	25.17	25.88	26.35	21.29	22.00	21.77	22.48	22.95
8H	4H	23.81	24.60	24.27	25.04	25.51	20.70	21.49	21.16	21.93	22.40
	6H	24.47	25.12	24.96	25.61	26.09	21.40	22.06	21.90	22.55	23.02
	8H	24.72	25.31	25.23	25.82	26.31	21.68	22.27	22.20	22.78	23.27
	12H	24.93	25.45	25.44	25.94	26.51	21.93	22.45	22.43	22.94	23.50
12H	4H	23.80	24.51	24.28	24.99	25.46	20.75	21.46	21.23	21.93	22.40
	6H	24.46	25.05	24.97	25.56	26.05	21.47	22.06	21.98	22.57	23.06
	8H	24.76	25.28	25.27	25.77	26.33	21.81	22.34	22.32	22.83	23.39