

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: P1056543

Luminaire Tested: S125R3DR-H1270D940-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056543  
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-H1270D940-X4F0-XX-UDD-FLL-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

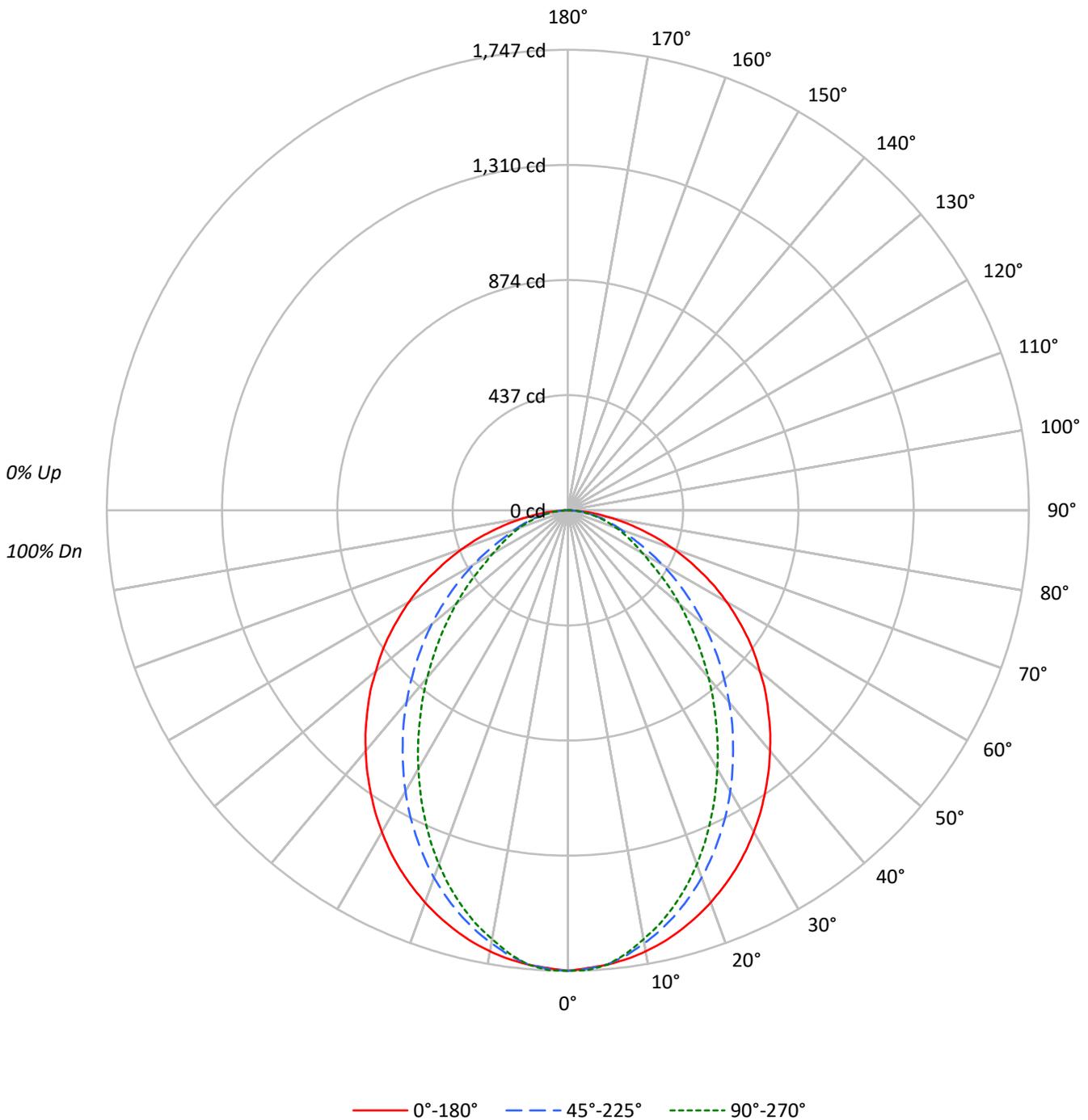
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3702.9 lumens  
Efficiency: N/A  
Efficacy: 101.2 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): 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	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	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86													86															
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73													73															
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63													63															
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55													55															
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48													48															
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43													43															
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38													38															
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34													34															
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31													31															
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28													28															

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

	0°	45°	90°
0°	12351	12351	12351
5°	12278	12269	12278
10°	12196	11972	11859
15°	12072	11606	11368
20°	11910	11157	10756
25°	11730	10624	10026
30°	11501	10046	9249
35°	11249	9420	8443
40°	10997	8776	7648
45°	10729	8103	6854
50°	10445	7412	6066
55°	10182	6654	5275
60°	9822	5849	4635
65°	9336	4961	4309
70°	8766	4436	4033
75°	7924	4086	3802
80°	6884	3709	3550
85°	5378	3269	3269

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10729 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.5	4.4
10°-20°	448.8	12.1
20°-30°	634.0	17.1
30°-40°	698.0	18.8
40°-50°	651.1	17.6
50°-60°	519.7	14.0
60°-70°	349.8	9.4
70°-80°	186.3	5.0
80°-90°	51.8	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°	1246.3	33.7
0°-40°	1944.3	52.5
0°-60°	3115.1	84.1
0°-90°	3702.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3702.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1747	1747	1747	1747	1747	
5°	1730	1744	1729	1724	1730	164
15°	1650	1640	1586	1558	1553	465
25°	1504	1458	1362	1302	1285	692
35°	1304	1227	1092	1006	978	816
45°	1073	972	810	712	686	829
55°	826	701	540	454	428	737
65°	558	436	297	263	258	554
75°	290	192	150	140	139	309
85°	66	46	40	42	40	79
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1747.1	1747.1	1747.1	1747.1	1747.1
2.5°	1738.0	1752.3	1740.6	1743.2	1745.8
5°	1730.2	1744.5	1728.9	1723.7	1730.2
7.5°	1717.2	1728.9	1702.9	1691.2	1696.4
10°	1699.0	1706.8	1667.8	1652.1	1652.1
12.5°	1676.9	1676.9	1630.0	1607.9	1607.9
15°	1649.5	1640.4	1585.8	1558.5	1553.3
17.5°	1618.3	1601.4	1536.4	1501.2	1494.7
20°	1583.2	1555.9	1483.0	1437.5	1429.7
22.5°	1544.2	1509.0	1424.5	1368.5	1359.4
25°	1503.8	1458.3	1362.0	1302.2	1285.3
27.5°	1458.3	1403.7	1298.3	1230.7	1209.8
30°	1408.9	1346.4	1230.7	1155.2	1133.1
32.5°	1358.1	1287.9	1161.7	1081.0	1056.3
35°	1303.5	1226.7	1091.5	1005.6	978.3
37.5°	1248.9	1165.6	1022.5	932.7	904.1
40°	1191.6	1100.6	951.0	858.6	828.7
42.5°	1134.4	1036.8	880.7	787.0	755.8
45°	1073.2	971.8	810.5	711.6	685.6
47.5°	1014.7	905.4	741.5	645.2	616.6
50°	949.7	836.5	673.9	577.6	551.6
52.5°	889.8	768.8	606.2	516.5	489.1
55°	826.1	701.2	539.9	454.0	428.0
57.5°	759.7	633.5	476.1	395.5	370.8
60°	694.7	565.9	413.7	339.5	327.8
62.5°	628.3	502.1	355.1	297.9	290.1
65°	558.1	435.8	296.6	262.8	257.6
67.5°	491.7	372.1	249.8	230.3	225.1
70°	424.1	308.3	214.6	197.7	195.1
72.5°	357.7	247.2	180.8	169.1	166.5
75°	290.1	192.5	149.6	140.5	139.2
77.5°	227.7	144.4	118.4	114.5	111.9
80°	169.1	108.0	91.1	88.5	87.2
82.5°	115.8	74.2	65.0	65.0	62.4
85°	66.3	45.5	40.3	41.6	40.3
87.5°	24.7	19.5	18.2	19.5	19.5
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	20.02	21.56	20.39	21.87	22.19	16.40	17.94	16.77	18.26	18.57
	3H	21.81	23.19	22.18	23.52	23.88	17.88	19.26	18.26	19.59	19.95
	4H	22.46	23.76	22.86	24.11	24.49	18.47	19.77	18.87	20.12	20.50
	6H	22.94	24.14	23.35	24.50	24.90	18.93	20.13	19.35	20.50	20.89
	8H	23.09	24.24	23.52	24.62	25.03	19.09	20.24	19.52	20.63	21.03
	12H	23.19	24.28	23.62	24.66	25.09	19.21	20.30	19.64	20.69	21.11
4H	2H	20.16	21.46	20.56	21.80	22.18	17.08	18.38	17.48	18.73	19.11
	3H	22.13	23.21	22.54	23.61	24.01	18.76	19.84	19.17	20.24	20.64
	4H	22.87	23.85	23.30	24.26	24.70	19.46	20.43	19.89	20.85	21.29
	6H	23.47	24.31	23.92	24.76	25.22	20.05	20.90	20.50	21.34	21.80
	8H	23.67	24.47	24.14	24.91	25.38	20.26	21.05	20.72	21.49	21.96
	12H	23.82	24.53	24.30	25.01	25.48	20.42	21.13	20.90	21.60	22.07
8H	4H	22.93	23.73	23.40	24.17	24.64	19.83	20.62	20.29	21.06	21.53
	6H	23.59	24.25	24.09	24.74	25.22	20.53	21.18	21.02	21.67	22.15
	8H	23.85	24.44	24.36	24.95	25.43	20.81	21.40	21.32	21.91	22.40
	12H	24.06	24.58	24.57	25.07	25.63	21.05	21.57	21.56	22.07	22.63
12H	4H	22.93	23.64	23.41	24.11	24.59	19.87	20.58	20.35	21.06	21.53
	6H	23.59	24.18	24.10	24.69	25.18	20.60	21.19	21.11	21.70	22.19
	8H	23.88	24.40	24.39	24.90	25.46	20.94	21.46	21.45	21.96	22.52