

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: P1056541

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

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056541  
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-H1270D940-X4F0-XX-UDD-FLL-B  
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

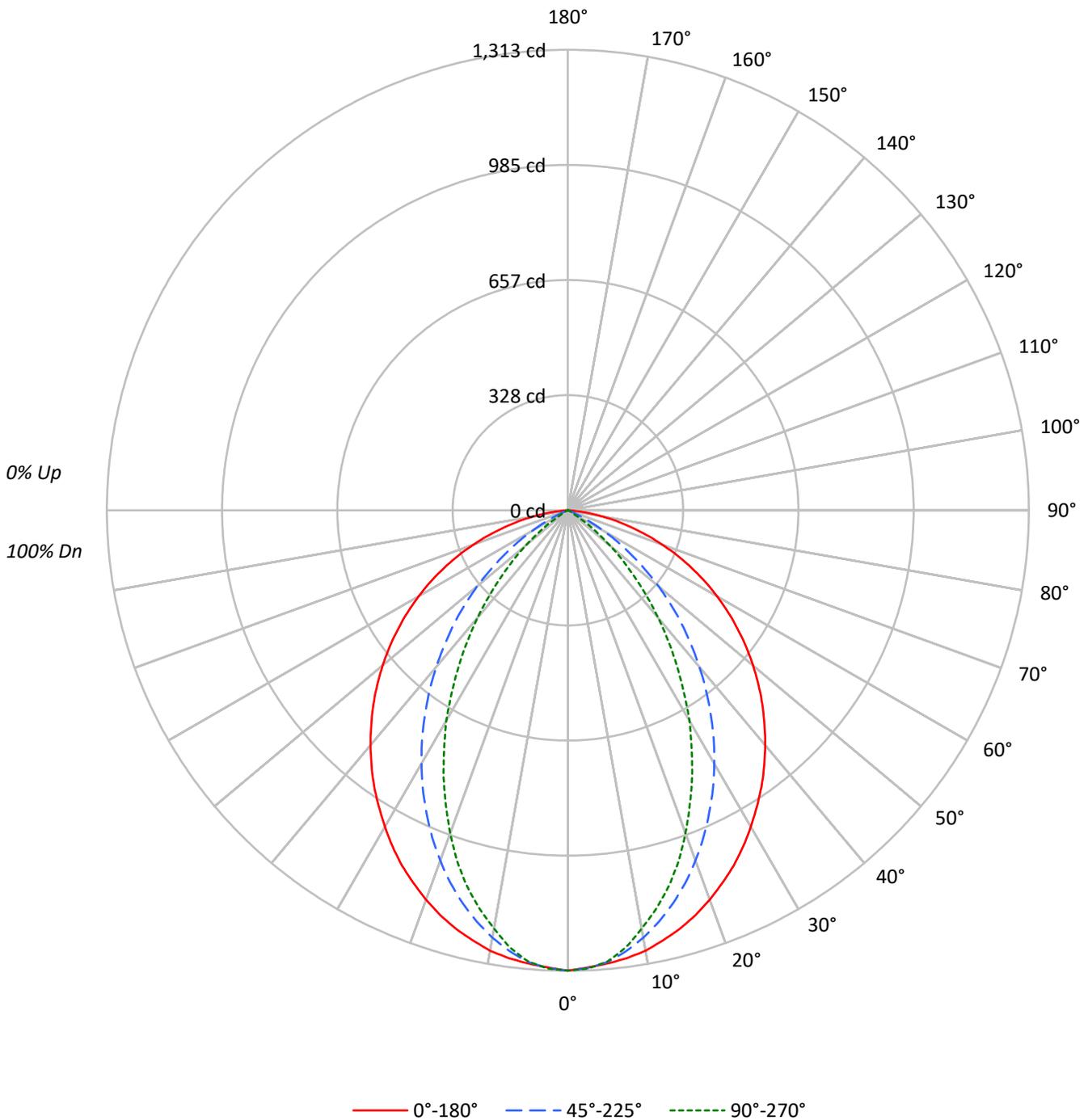
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2127.5 lumens  
Efficiency: N/A  
Efficacy: 58.1 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 (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	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

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

	0°	45°	90°
0°	9279	9279	9279
5°	9204	9176	9167
10°	9152	8881	8694
15°	9036	8483	8122
20°	8886	7995	7370
25°	8717	7428	6535
30°	8506	6807	5650
35°	8297	6119	4671
40°	8067	5378	3698
45°	7829	4591	2679
50°	7569	3705	1731
55°	7279	2710	769
60°	6934	1674	221
65°	6507	609	130
70°	5889	215	54
75°	5116	71	36
80°	3920	53	0
85°	1793	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7829 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.9	5.7
10°-20°	327.4	15.4
20°-30°	442.9	20.8
30°-40°	455.0	21.4
40°-50°	376.9	17.7
50°-60°	242.0	11.4
60°-70°	116.9	5.5
70°-80°	39.5	1.9
80°-90°	5.1	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°	892.2	41.9
0°-40°	1347.1	63.3
0°-60°	1966.0	92.4
0°-90°	2127.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2127.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1313	1313	1313	1313	1313	
5°	1297	1307	1293	1285	1292	123
15°	1235	1219	1159	1119	1110	348
25°	1118	1063	952	866	838	514
35°	961	869	709	585	541	601
45°	783	654	459	317	268	604
55°	591	433	220	96	62	528
65°	389	215	36	10	8	385
75°	187	40	3	1	1	199
85°	22	0	0	0	0	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1312.6	1312.6	1312.6	1312.6	1312.6
2.5°	1304.8	1315.2	1306.1	1304.8	1307.4
5°	1297.0	1307.4	1293.1	1285.3	1291.8
7.5°	1287.9	1293.1	1268.4	1255.4	1258.0
10°	1274.9	1273.6	1237.2	1215.0	1211.1
12.5°	1255.4	1248.9	1200.7	1169.5	1163.0
15°	1234.6	1218.9	1159.1	1118.8	1109.7
17.5°	1209.8	1185.1	1113.6	1061.5	1048.5
20°	1181.2	1147.4	1062.8	999.1	979.6
22.5°	1150.0	1107.1	1009.5	934.0	908.0
25°	1117.5	1062.8	952.3	866.4	837.8
27.5°	1081.1	1017.3	895.0	797.5	762.3
30°	1042.0	969.2	833.9	727.2	692.1
32.5°	1001.7	921.0	772.7	657.0	614.0
35°	961.4	869.0	709.0	585.4	541.2
37.5°	918.4	817.0	646.5	517.8	469.6
40°	874.2	763.6	582.8	447.5	400.7
42.5°	828.7	709.0	519.1	381.2	333.0
45°	783.1	654.4	459.2	317.4	268.0
47.5°	736.3	598.4	396.8	255.0	212.0
50°	688.2	543.8	336.9	199.0	157.4
52.5°	640.0	487.8	275.8	144.4	106.7
55°	590.6	433.2	219.9	96.3	62.4
57.5°	541.2	377.3	167.8	53.3	23.4
60°	490.4	323.9	118.4	18.2	15.6
62.5°	441.0	266.7	74.2	14.3	11.7
65°	389.0	214.6	36.4	10.4	7.8
67.5°	338.2	165.2	15.6	6.5	3.9
70°	284.9	119.7	10.4	3.9	2.6
72.5°	235.5	76.8	6.5	2.6	1.3
75°	187.3	40.3	2.6	1.3	1.3
77.5°	140.5	16.9	1.3	1.3	1.3
80°	96.3	7.8	1.3	1.3	0.0
82.5°	57.2	2.6	1.3	1.3	0.0
85°	22.1	0.0	0.0	0.0	0.0
87.5°	1.3	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	18.81	20.19	19.17	20.51	20.82	3.67	5.05	4.03	5.37	5.68
	3H	20.36	21.59	20.74	21.92	22.28	3.59	4.82	3.97	5.15	5.51
	4H	20.88	22.03	21.28	22.38	22.76	3.52	4.67	3.93	5.02	5.40
	6H	21.22	22.27	21.63	22.64	23.03	3.45	4.51	3.87	4.88	5.27
	8H	21.30	22.30	21.73	22.69	23.09	3.41	4.41	3.84	4.80	5.20
	12H	21.32	22.27	21.75	22.65	23.08	3.37	4.33	3.81	4.71	5.14
4H	2H	18.61	19.76	19.01	20.11	20.49	4.53	5.68	4.93	6.03	6.41
	3H	20.23	21.16	20.64	21.56	21.97	4.48	5.42	4.89	5.82	6.22
	4H	20.75	21.58	21.18	22.00	22.44	4.40	5.24	4.84	5.66	6.10
	6H	21.12	21.84	21.58	22.29	22.75	4.34	5.06	4.80	5.50	5.97
	8H	21.22	21.89	21.69	22.34	22.81	4.29	4.96	4.76	5.41	5.88
	12H	21.26	21.85	21.74	22.33	22.81	4.25	4.84	4.73	5.32	5.80
8H	4H	20.62	21.29	21.09	21.74	22.21	5.43	6.10	5.90	6.54	7.01
	6H	20.98	21.52	21.48	22.02	22.50	5.34	5.89	5.85	6.39	6.87
	8H	21.07	21.56	21.59	22.08	22.57	5.29	5.78	5.81	6.30	6.79
	12H	21.11	21.55	21.63	22.04	22.61	5.25	5.69	5.76	6.18	6.75
12H	4H	20.58	21.17	21.06	21.65	22.13	5.51	6.10	5.99	6.58	7.05
	6H	20.92	21.41	21.44	21.92	22.41	5.41	5.90	5.93	6.41	6.91
	8H	21.03	21.46	21.54	21.96	22.53	5.38	5.81	5.89	6.30	6.87