

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: P1056498

Luminaire Tested: S125R3DR-H1090D835-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056498  
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-H1090D835-X4F0-XX-UDD-FLL-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

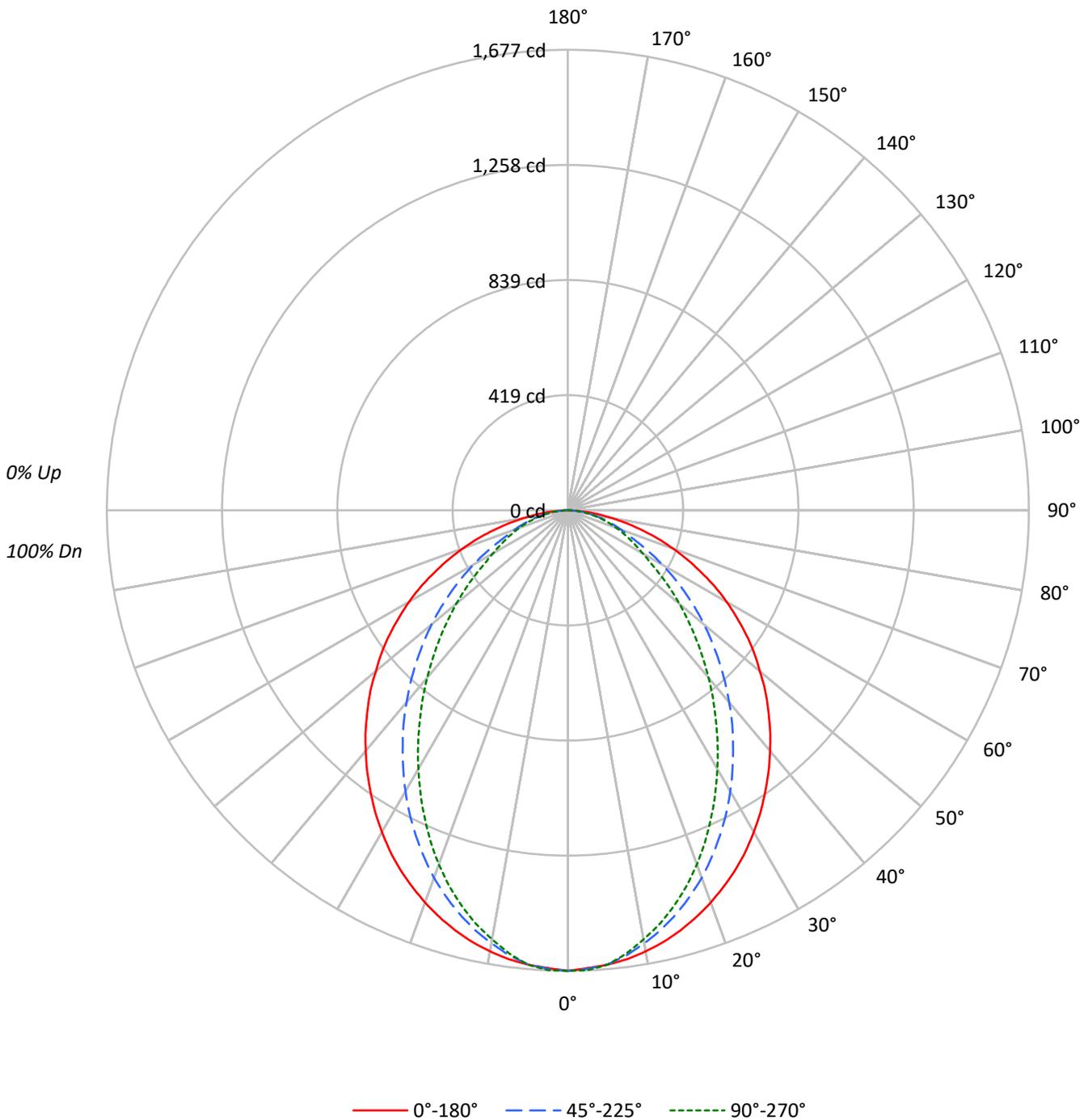
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3554.8 lumens  
Efficiency: N/A  
Efficacy: 115.0 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): 30.9  
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	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	31	42	35	30	41	35	30	40	34	30	28					28			

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

	0°	45°	90°
0°	11857	11857	11857
5°	11787	11778	11787
10°	11708	11493	11385
15°	11589	11141	10913
20°	11434	10711	10325
25°	11261	10199	9625
30°	11040	9644	8879
35°	10799	9043	8104
40°	10556	8425	7341
45°	10300	7778	6579
50°	10027	7115	5823
55°	9774	6388	5064
60°	9429	5614	4449
65°	8963	4762	4137
70°	8414	4260	3871
75°	7607	3922	3649
80°	6607	3558	3407
85°	5167	3139	3139

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10300 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.9	4.4
10°-20°	430.9	12.1
20°-30°	608.7	17.1
30°-40°	670.1	18.8
40°-50°	625.0	17.6
50°-60°	498.9	14.0
60°-70°	335.8	9.4
70°-80°	178.8	5.0
80°-90°	49.7	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°	1196.5	33.7
0°-40°	1866.5	52.5
0°-60°	2990.5	84.1
0°-90°	3554.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3554.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1677	1677	1677	1677	1677	
5°	1661	1675	1660	1655	1661	158
15°	1584	1575	1522	1496	1491	446
25°	1444	1400	1308	1250	1234	665
35°	1251	1178	1048	965	939	783
45°	1030	933	778	683	658	795
55°	793	673	518	436	411	708
65°	536	418	285	252	247	531
75°	278	185	144	135	134	297
85°	64	44	39	40	39	76
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1677.2	1677.2	1677.2	1677.2	1677.2
2.5°	1668.5	1682.2	1671.0	1673.5	1676.0
5°	1661.0	1674.7	1659.7	1654.7	1661.0
7.5°	1648.5	1659.7	1634.7	1623.5	1628.5
10°	1631.0	1638.5	1601.0	1586.0	1586.0
12.5°	1609.8	1609.8	1564.8	1543.6	1543.6
15°	1583.5	1574.8	1522.3	1496.1	1491.1
17.5°	1553.6	1537.3	1474.9	1441.2	1434.9
20°	1519.8	1493.6	1423.7	1380.0	1372.5
22.5°	1482.4	1448.7	1367.5	1313.8	1305.0
25°	1443.7	1400.0	1307.5	1250.1	1233.9
27.5°	1400.0	1347.5	1246.3	1181.4	1161.4
30°	1352.5	1292.6	1181.4	1109.0	1087.7
32.5°	1303.8	1236.4	1115.2	1037.8	1014.1
35°	1251.3	1177.7	1047.8	965.4	939.1
37.5°	1198.9	1119.0	981.6	895.4	867.9
40°	1143.9	1056.5	912.9	824.2	795.5
42.5°	1089.0	995.3	845.5	755.6	725.6
45°	1030.3	932.9	778.0	683.1	658.1
47.5°	974.1	869.2	711.8	619.4	592.0
50°	911.7	803.0	646.9	554.5	529.5
52.5°	854.2	738.1	582.0	495.8	469.6
55°	793.0	673.1	518.3	435.8	410.9
57.5°	729.3	608.2	457.1	379.6	355.9
60°	666.9	543.2	397.1	325.9	314.7
62.5°	603.2	482.1	340.9	286.0	278.5
65°	535.8	418.4	284.7	252.3	247.3
67.5°	472.1	357.2	239.8	221.0	216.1
70°	407.1	296.0	206.1	189.8	187.3
72.5°	343.4	237.3	173.6	162.3	159.9
75°	278.5	184.8	143.6	134.9	133.6
77.5°	218.5	138.6	113.6	109.9	107.4
80°	162.3	103.7	87.4	84.9	83.7
82.5°	111.1	71.2	62.4	62.4	59.9
85°	63.7	43.7	38.7	40.0	38.7
87.5°	23.7	18.7	17.5	18.7	18.7
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	19.88	21.42	20.25	21.73	22.05	16.26	17.80	16.63	18.11	18.43
	3H	21.67	23.05	22.04	23.38	23.74	17.74	19.12	18.12	19.45	19.81
	4H	22.32	23.62	22.72	23.97	24.34	18.33	19.63	18.73	19.98	20.35
	6H	22.80	24.00	23.21	24.36	24.75	18.79	19.99	19.20	20.36	20.75
	8H	22.95	24.09	23.37	24.48	24.88	18.95	20.10	19.38	20.48	20.89
	12H	23.04	24.14	23.47	24.52	24.95	19.07	20.16	19.50	20.54	20.97
4H	2H	20.01	21.31	20.41	21.66	22.04	16.94	18.24	17.34	18.59	18.96
	3H	21.99	23.07	22.40	23.47	23.87	18.62	19.70	19.03	20.10	20.50
	4H	22.73	23.70	23.16	24.12	24.56	19.32	20.29	19.75	20.71	21.15
	6H	23.32	24.17	23.78	24.61	25.07	19.90	20.75	20.36	21.20	21.65
	8H	23.53	24.32	23.99	24.77	25.23	20.11	20.91	20.58	21.35	21.82
	12H	23.68	24.39	24.16	24.86	25.34	20.27	20.98	20.76	21.46	21.93
8H	4H	22.79	23.59	23.26	24.03	24.50	19.68	20.48	20.15	20.92	21.39
	6H	23.45	24.11	23.95	24.60	25.08	20.38	21.04	20.88	21.53	22.01
	8H	23.71	24.30	24.22	24.80	25.29	20.67	21.26	21.18	21.77	22.25
	12H	23.91	24.44	24.42	24.93	25.49	20.91	21.43	21.42	21.92	22.49
12H	4H	22.79	23.50	23.27	23.97	24.44	19.73	20.44	20.21	20.92	21.39
	6H	23.45	24.04	23.96	24.55	25.03	20.46	21.05	20.97	21.56	22.04
	8H	23.74	24.26	24.25	24.75	25.32	20.80	21.32	21.31	21.81	22.38