

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: P1056524

Luminaire Tested: S125R3DR-H1270D835-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1056524  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-H1270D835-X4F0-XX-UDD-FLL-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

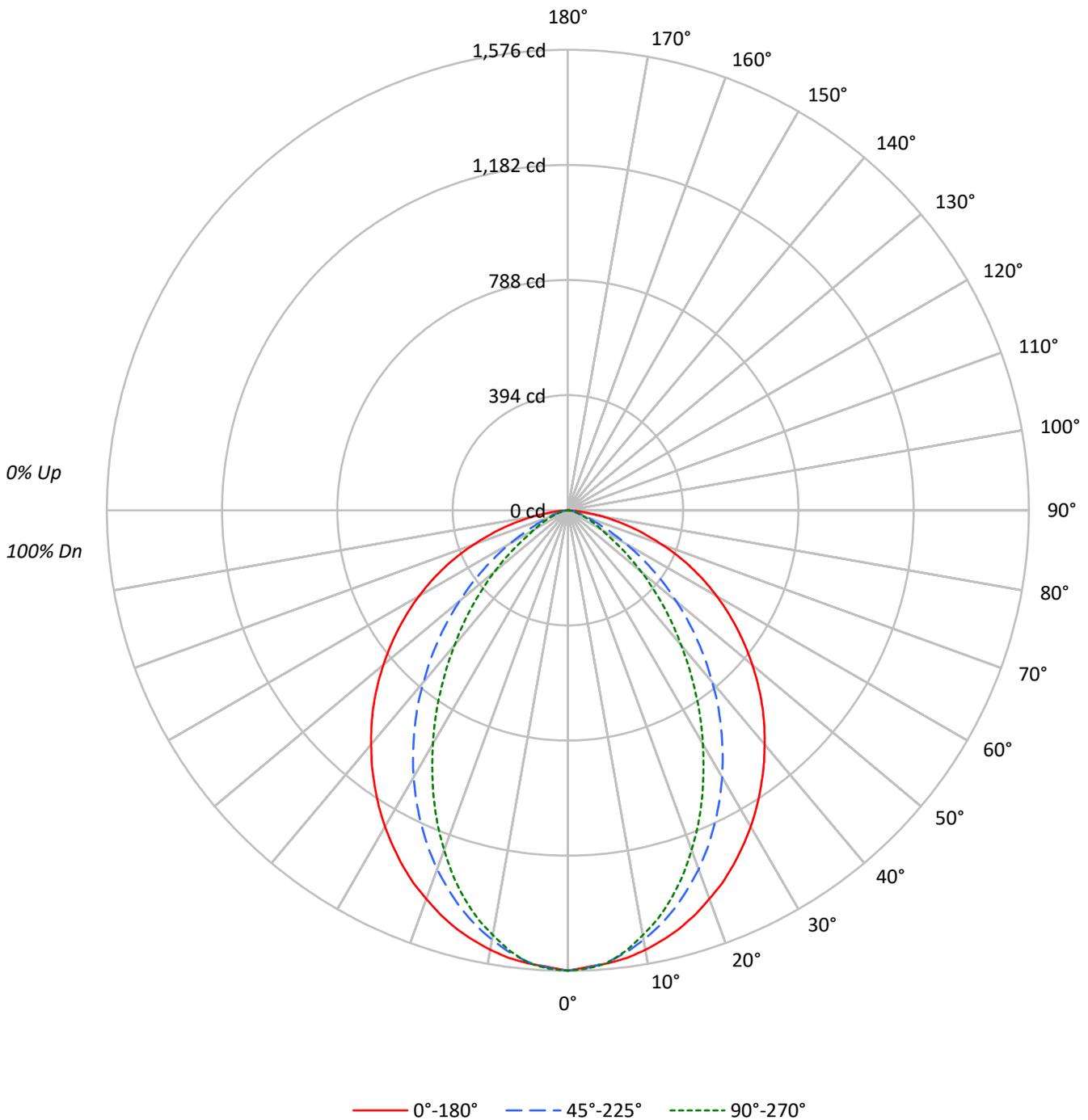
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2847.8 lumens  
Efficiency: N/A  
Efficacy: 77.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11  
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77				77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67				67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59				59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47				47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35				35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32

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

	0°	45°	90°
0°	11138	11138	11138
5°	11046	11016	11036
10°	10964	10713	10598
15°	10838	10325	10047
20°	10646	9834	9307
25°	10447	9252	8466
30°	10206	8610	7539
35°	9934	7882	6560
40°	9653	7082	5547
45°	9379	6242	4594
50°	9049	5311	3610
55°	8703	4315	2625
60°	8312	3218	1878
65°	7808	2123	1464
70°	7057	1478	1025
75°	6137	956	798
80°	4812	712	651
85°	2482	592	470

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9379 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.8	5.2
10°-20°	399.0	14.0
20°-30°	551.7	19.4
30°-40°	584.5	20.5
40°-50°	510.2	17.9
50°-60°	362.9	12.7
60°-70°	201.8	7.1
70°-80°	77.6	2.7
80°-90°	13.4	0.5
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°	1097.4	38.5
0°-40°	1681.9	59.1
0°-60°	2555.0	89.7
0°-90°	2847.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2847.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1576	1576	1576	1576	1576	
5°	1557	1568	1552	1548	1555	148
15°	1481	1468	1411	1380	1373	417
25°	1339	1294	1186	1113	1085	617
35°	1151	1072	913	802	760	720
45°	938	826	624	499	460	723
55°	706	566	350	242	213	631
65°	467	306	127	93	88	461
75°	225	88	35	29	29	238
85°	31	9	7	6	6	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1575.6	1575.6	1575.6	1575.6	1575.6
2.5°	1563.9	1580.0	1566.8	1568.3	1569.8
5°	1556.6	1568.3	1552.3	1547.9	1555.2
7.5°	1545.0	1553.7	1526.0	1515.8	1520.2
10°	1527.4	1530.4	1492.4	1477.8	1476.4
12.5°	1505.6	1501.2	1454.5	1431.2	1429.7
15°	1480.8	1467.6	1410.7	1380.1	1372.8
17.5°	1450.1	1429.7	1359.7	1320.3	1308.6
20°	1415.1	1387.4	1307.2	1256.1	1237.1
22.5°	1380.1	1342.2	1248.8	1184.6	1164.2
25°	1339.3	1294.0	1186.1	1113.1	1085.4
27.5°	1295.5	1241.5	1121.9	1037.3	1003.7
30°	1250.3	1187.5	1054.8	959.9	923.5
32.5°	1202.1	1130.6	984.7	881.2	843.2
35°	1151.1	1072.3	913.3	802.4	760.1
37.5°	1100.0	1012.5	843.2	725.1	681.3
40°	1046.0	951.2	767.4	646.3	601.1
42.5°	993.5	888.5	695.9	571.9	531.0
45°	938.1	825.7	624.4	498.9	459.5
47.5°	881.2	760.1	552.9	430.4	391.0
50°	822.8	695.9	482.9	363.3	328.2
52.5°	764.5	631.7	417.2	299.1	268.4
55°	706.1	566.0	350.1	242.2	213.0
57.5°	647.7	501.9	287.4	189.7	163.4
60°	587.9	436.2	227.6	140.1	132.8
62.5°	528.1	372.0	176.5	115.3	109.4
65°	466.8	306.4	126.9	93.4	87.5
67.5°	405.6	246.6	91.9	71.5	67.1
70°	341.4	188.2	71.5	54.0	49.6
72.5°	280.1	135.7	51.1	39.4	37.9
75°	224.7	87.5	35.0	29.2	29.2
77.5°	169.2	52.5	24.8	21.9	21.9
80°	118.2	30.6	17.5	16.0	16.0
82.5°	71.5	16.0	11.7	10.2	10.2
85°	30.6	8.8	7.3	5.8	5.8
87.5°	5.8	2.9	2.9	2.9	2.9
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	19.54	20.98	19.90	21.29	21.61	12.18	13.62	12.54	13.93	14.25
	3H	21.10	22.38	21.47	22.71	23.07	12.74	14.03	13.12	14.35	14.72
	4H	21.62	22.82	22.02	23.17	23.55	12.86	14.07	13.26	14.41	14.80
	6H	21.95	23.06	22.37	23.43	23.82	12.93	14.04	13.34	14.40	14.80
	8H	22.04	23.09	22.46	23.48	23.88	12.93	13.98	13.36	14.37	14.78
	12H	22.06	23.07	22.49	23.45	23.88	12.92	13.93	13.35	14.31	14.74
4H	2H	19.43	20.64	19.83	20.98	21.37	12.74	13.94	13.14	14.29	14.67
	3H	21.10	22.09	21.51	22.49	22.89	13.41	14.40	13.82	14.80	15.20
	4H	21.65	22.53	22.08	22.95	23.39	13.57	14.45	14.00	14.87	15.31
	6H	22.04	22.81	22.50	23.25	23.71	13.68	14.45	14.14	14.89	15.35
	8H	22.15	22.86	22.61	23.30	23.77	13.69	14.41	14.16	14.85	15.32
	12H	22.19	22.83	22.68	23.31	23.78	13.69	14.33	14.18	14.81	15.28
8H	4H	21.55	22.27	22.02	22.71	23.18	13.84	14.55	14.31	15.00	15.47
	6H	21.94	22.52	22.44	23.02	23.50	13.97	14.56	14.47	15.05	15.53
	8H	22.05	22.57	22.56	23.08	23.57	14.00	14.53	14.52	15.04	15.53
	12H	22.11	22.57	22.62	23.07	23.63	14.02	14.49	14.53	14.98	15.55
12H	4H	21.52	22.15	22.00	22.63	23.10	13.85	14.49	14.34	14.97	15.44
	6H	21.89	22.41	22.40	22.92	23.41	13.98	14.51	14.50	15.02	15.51
	8H	22.01	22.48	22.53	22.97	23.54	14.04	14.51	14.56	15.00	15.57