

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: P1056406

Luminaire Tested: S125R3DR-S1270D940-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056406
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-S1270D940-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

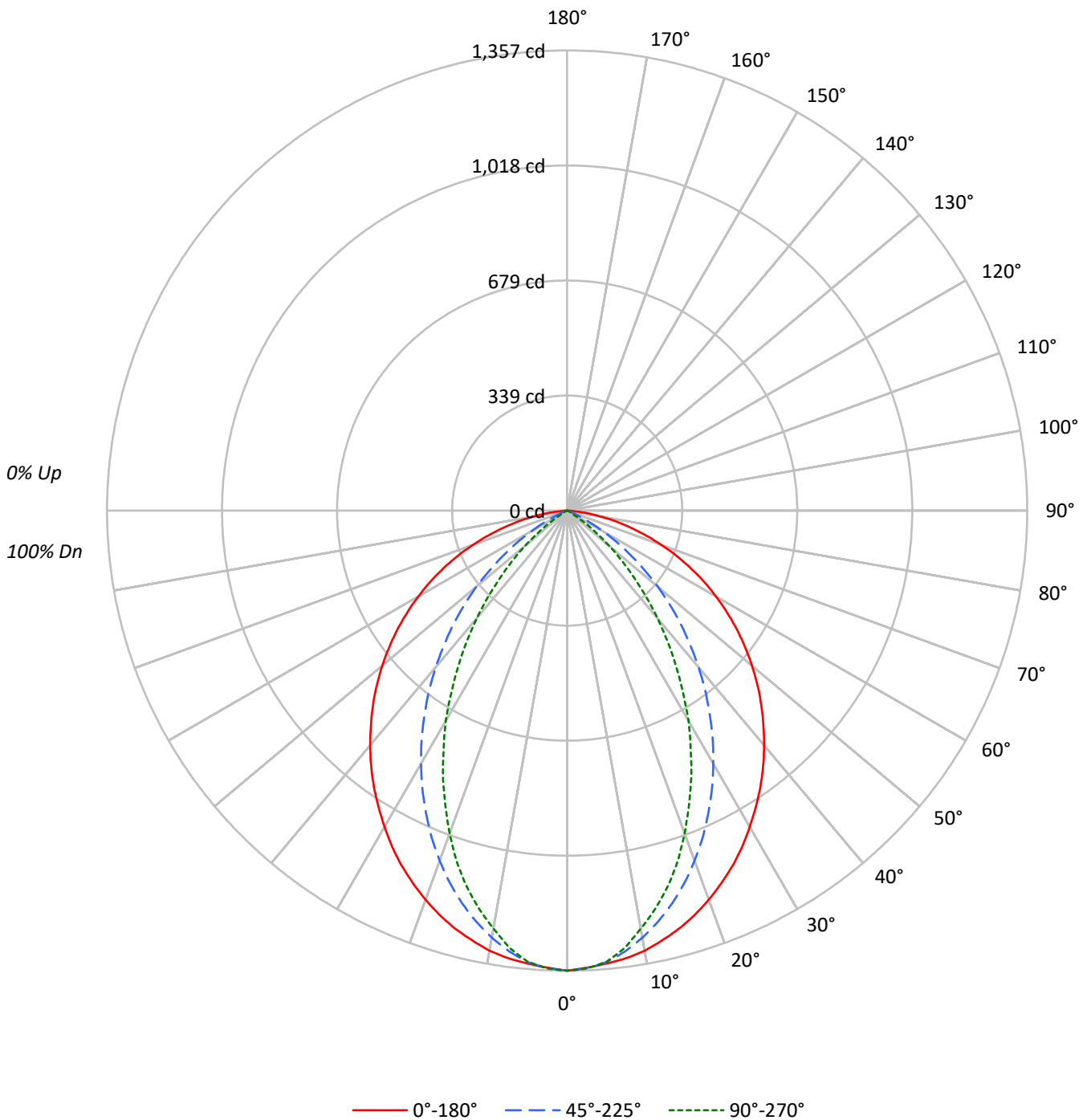
Lumens per Lamp: N/A
Luminaire Lumens: 2199.4 lumens
Efficiency: N/A
Efficacy: 52.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (A_{in}): 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°	9592	9592	9592
5°	9515	9486	9476
10°	9460	9180	8987
15°	9341	8770	8395
20°	9186	8266	7619
25°	9011	7678	6756
30°	8793	7036	5841
35°	8577	6325	4829
40°	8340	5560	3822
45°	8094	4746	2769
50°	7824	3831	1789
55°	7526	2801	796
60°	7168	1731	228
65°	6726	631	135
70°	6087	223	56
75°	5291	74	36
80°	4051	53	0
85°	1857	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8094 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.0	5.7
10°-20°	338.4	15.4
20°-30°	457.8	20.8
30°-40°	470.3	21.4
40°-50°	389.6	17.7
50°-60°	250.2	11.4
60°-70°	120.8	5.5
70°-80°	40.9	1.9
80°-90°	5.2	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°	922.3	41.9
0°-40°	1392.6	63.3
0°-60°	2032.4	92.4
0°-90°	2199.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2199.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1357	1357	1357	1357	1357	
5°	1341	1352	1337	1329	1335	127
15°	1276	1260	1198	1157	1147	360
25°	1155	1099	984	896	866	532
35°	994	898	733	605	560	621
45°	810	676	475	328	277	624
55°	611	448	227	100	65	546
65°	402	222	38	11	8	398
75°	194	42	3	1	1	205
85°	23	0	0	0	0	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1356.9	1356.9	1356.9	1356.9	1356.9
2.5°	1348.9	1359.6	1350.2	1348.9	1351.6
5°	1340.8	1351.6	1336.8	1328.7	1335.4
7.5°	1331.4	1336.8	1311.2	1297.8	1300.5
10°	1317.9	1316.6	1278.9	1256.1	1252.0
12.5°	1297.8	1291.0	1241.3	1209.0	1202.3
15°	1276.3	1260.1	1198.3	1156.6	1147.1
17.5°	1250.7	1225.1	1151.2	1097.4	1083.9
20°	1221.1	1186.1	1098.7	1032.8	1012.7
22.5°	1188.8	1144.5	1043.6	965.6	938.7
25°	1155.2	1098.7	984.4	895.7	866.1
27.5°	1117.6	1051.7	925.2	824.4	788.1
30°	1077.2	1001.9	862.0	751.8	715.5
32.5°	1035.5	952.1	798.8	679.1	634.8
35°	993.8	898.4	732.9	605.2	559.5
37.5°	949.5	844.6	668.4	535.2	485.5
40°	903.7	789.4	602.5	462.6	414.2
42.5°	856.7	732.9	536.6	394.0	344.3
45°	809.6	676.5	474.7	328.1	277.0
47.5°	761.2	618.6	410.2	263.6	219.2
50°	711.4	562.1	348.3	205.8	162.7
52.5°	661.7	504.3	285.1	149.3	110.3
55°	610.6	447.8	227.3	99.5	64.6
57.5°	559.5	390.0	173.5	55.1	24.2
60°	507.0	334.9	122.4	18.8	16.1
62.5°	455.9	275.7	76.7	14.8	12.1
65°	402.1	221.9	37.7	10.8	8.1
67.5°	349.7	170.8	16.1	6.7	4.0
70°	294.5	123.7	10.8	4.0	2.7
72.5°	243.4	79.3	6.7	2.7	1.3
75°	193.7	41.7	2.7	1.3	1.3
77.5°	145.2	17.5	1.3	1.3	1.3
80°	99.5	8.1	1.3	1.3	0.0
82.5°	59.2	2.7	1.3	1.3	0.0
85°	22.9	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	18.92	20.31	19.29	20.62	20.94	3.78	5.17	4.15	5.48	5.80
	3H	20.47	21.70	20.85	22.03	22.40	3.71	4.93	4.08	5.26	5.63
	4H	21.00	22.14	21.40	22.49	22.87	3.64	4.78	4.04	5.13	5.52
	6H	21.34	22.39	21.75	22.76	23.15	3.57	4.62	3.98	4.99	5.38
	8H	21.42	22.41	21.85	22.80	23.21	3.53	4.52	3.96	4.92	5.32
	12H	21.43	22.39	21.87	22.77	23.20	3.49	4.44	3.92	4.82	5.25
4H	2H	18.73	19.87	19.13	20.22	20.60	4.65	5.80	5.05	6.15	6.53
	3H	20.34	21.28	20.75	21.68	22.08	4.60	5.53	5.01	5.94	6.34
	4H	20.86	21.70	21.30	22.12	22.56	4.52	5.36	4.96	5.77	6.22
	6H	21.24	21.96	21.70	22.40	22.87	4.46	5.17	4.92	5.62	6.09
	8H	21.34	22.01	21.81	22.45	22.92	4.40	5.08	4.87	5.52	5.99
	12H	21.37	21.97	21.86	22.45	22.92	4.36	4.96	4.85	5.44	5.91
8H	4H	20.74	21.41	21.20	21.85	22.32	5.54	6.21	6.01	6.66	7.13
	6H	21.09	21.64	21.59	22.14	22.62	5.46	6.01	5.96	6.50	6.98
	8H	21.19	21.68	21.71	22.19	22.68	5.41	5.90	5.93	6.41	6.90
	12H	21.23	21.66	21.74	22.16	22.73	5.37	5.80	5.88	6.30	6.87
12H	4H	20.69	21.29	21.18	21.77	22.24	5.62	6.22	6.11	6.70	7.17
	6H	21.03	21.52	21.55	22.04	22.53	5.52	6.02	6.04	6.53	7.02
	8H	21.14	21.58	21.66	22.07	22.64	5.49	5.93	6.00	6.42	6.99