

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: P1056365

Luminaire Tested: S125R3DR-S1090D840-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056365  
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-S1090D840-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

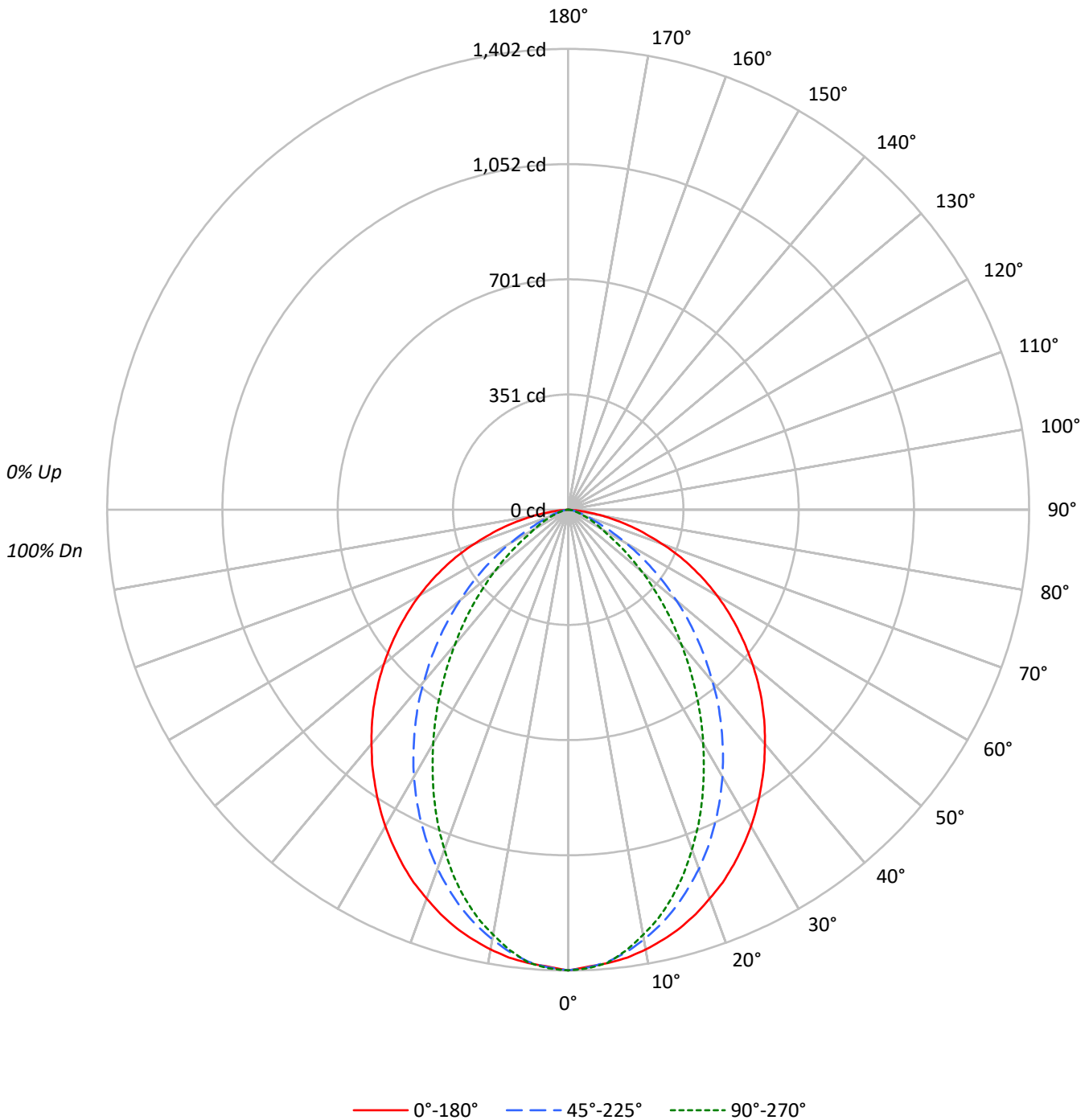
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2533.2 lumens  
Efficiency: N/A  
Efficacy: 73.0 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): 34.7  
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°	9908	9908	9908
5°	9826	9799	9817
10°	9753	9530	9427
15°	9640	9184	8938
20°	9470	8748	8279
25°	9292	8230	7531
30°	9079	7659	6706
35°	8836	7011	5835
40°	8587	6299	4934
45°	8342	5553	4087
50°	8049	4725	3211
55°	7741	3839	2336
60°	7395	2862	1670
65°	6947	1889	1303
70°	6277	1315	912
75°	5460	849	710
80°	4279	635	582
85°	2214	527	422

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8342 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.5	5.2
10°-20°	354.9	14.0
20°-30°	490.8	19.4
30°-40°	519.9	20.5
40°-50°	453.8	17.9
50°-60°	322.8	12.7
60°-70°	179.5	7.1
70°-80°	69.0	2.7
80°-90°	12.0	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°	976.2	38.5
0°-40°	1496.2	59.1
0°-60°	2272.8	89.7
0°-90°	2533.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2533.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1402	1402	1402	1402	1402	
5°	1385	1395	1381	1377	1383	131
15°	1317	1306	1255	1228	1221	371
25°	1191	1151	1055	990	966	548
35°	1024	954	812	714	676	641
45°	834	734	555	444	409	643
55°	628	504	312	215	190	562
65°	415	272	113	83	78	410
75°	200	78	31	26	26	212
85°	27	8	6	5	5	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1401.6	1401.6	1401.6	1401.6	1401.6
2.5°	1391.2	1405.5	1393.8	1395.1	1396.4
5°	1384.7	1395.1	1380.8	1376.9	1383.4
7.5°	1374.3	1382.1	1357.4	1348.4	1352.2
10°	1358.7	1361.3	1327.6	1314.6	1313.3
12.5°	1339.3	1335.4	1293.8	1273.1	1271.8
15°	1317.2	1305.5	1254.9	1227.7	1221.2
17.5°	1290.0	1271.8	1209.5	1174.5	1164.1
20°	1258.8	1234.2	1162.8	1117.4	1100.5
22.5°	1227.7	1193.9	1110.9	1053.8	1035.6
25°	1191.3	1151.1	1055.1	990.2	965.5
27.5°	1152.4	1104.4	998.0	922.7	892.8
30°	1112.2	1056.4	938.3	853.9	821.5
32.5°	1069.3	1005.8	876.0	783.8	750.1
35°	1023.9	953.8	812.4	713.8	676.1
37.5°	978.5	900.6	750.1	645.0	606.0
40°	930.5	846.1	682.6	574.9	534.7
42.5°	883.8	790.3	619.0	508.7	472.4
45°	834.4	734.5	555.4	443.8	408.8
47.5°	783.8	676.1	491.8	382.8	347.8
50°	731.9	619.0	429.6	323.1	292.0
52.5°	680.0	561.9	371.2	266.0	238.8
55°	628.1	503.5	311.5	215.4	189.5
57.5°	576.2	446.4	255.7	168.7	145.3
60°	523.0	388.0	202.4	124.6	118.1
62.5°	469.8	330.9	157.0	102.5	97.3
65°	415.3	272.5	112.9	83.1	77.9
67.5°	360.8	219.3	81.8	63.6	59.7
70°	303.7	167.4	63.6	48.0	44.1
72.5°	249.2	120.7	45.4	35.0	33.7
75°	199.9	77.9	31.1	26.0	26.0
77.5°	150.5	46.7	22.1	19.5	19.5
80°	105.1	27.3	15.6	14.3	14.3
82.5°	63.6	14.3	10.4	9.1	9.1
85°	27.3	7.8	6.5	5.2	5.2
87.5°	5.2	2.6	2.6	2.6	2.6
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	19.13	20.57	19.49	20.89	21.20	11.77	13.21	12.13	13.52	13.84
	3H	20.69	21.98	21.07	22.30	22.67	12.33	13.62	12.71	13.95	14.31
	4H	21.21	22.41	21.61	22.76	23.14	12.45	13.66	12.86	14.01	14.39
	6H	21.55	22.65	21.96	23.02	23.42	12.52	13.63	12.93	14.00	14.39
	8H	21.63	22.68	22.06	23.07	23.47	12.53	13.58	12.95	13.97	14.37
	12H	21.65	22.66	22.09	23.04	23.47	12.52	13.52	12.95	13.90	14.33
4H	2H	19.03	20.23	19.43	20.58	20.96	12.33	13.53	12.73	13.88	14.26
	3H	20.69	21.68	21.10	22.08	22.48	13.00	13.99	13.42	14.39	14.80
	4H	21.24	22.12	21.68	22.54	22.98	13.16	14.05	13.60	14.46	14.90
	6H	21.63	22.40	22.09	22.84	23.31	13.27	14.04	13.73	14.48	14.95
	8H	21.74	22.45	22.21	22.90	23.37	13.29	14.00	13.75	14.44	14.91
	12H	21.79	22.42	22.27	22.90	23.37	13.29	13.92	13.77	14.40	14.87
8H	4H	21.15	21.86	21.61	22.30	22.77	13.43	14.14	13.90	14.59	15.06
	6H	21.53	22.12	22.03	22.61	23.09	13.57	14.15	14.07	14.64	15.12
	8H	21.64	22.16	22.16	22.68	23.17	13.59	14.12	14.11	14.63	15.12
	12H	21.70	22.17	22.22	22.66	23.23	13.62	14.08	14.13	14.57	15.14
12H	4H	21.11	21.74	21.59	22.22	22.70	13.45	14.08	13.93	14.56	15.03
	6H	21.48	22.00	22.00	22.52	23.01	13.58	14.10	14.10	14.62	15.11
	8H	21.61	22.07	22.12	22.56	23.13	13.64	14.10	14.15	14.59	15.16