

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: P1056372

Luminaire Tested: S125R3DR-S1090D927-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056372
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-S1090D927-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

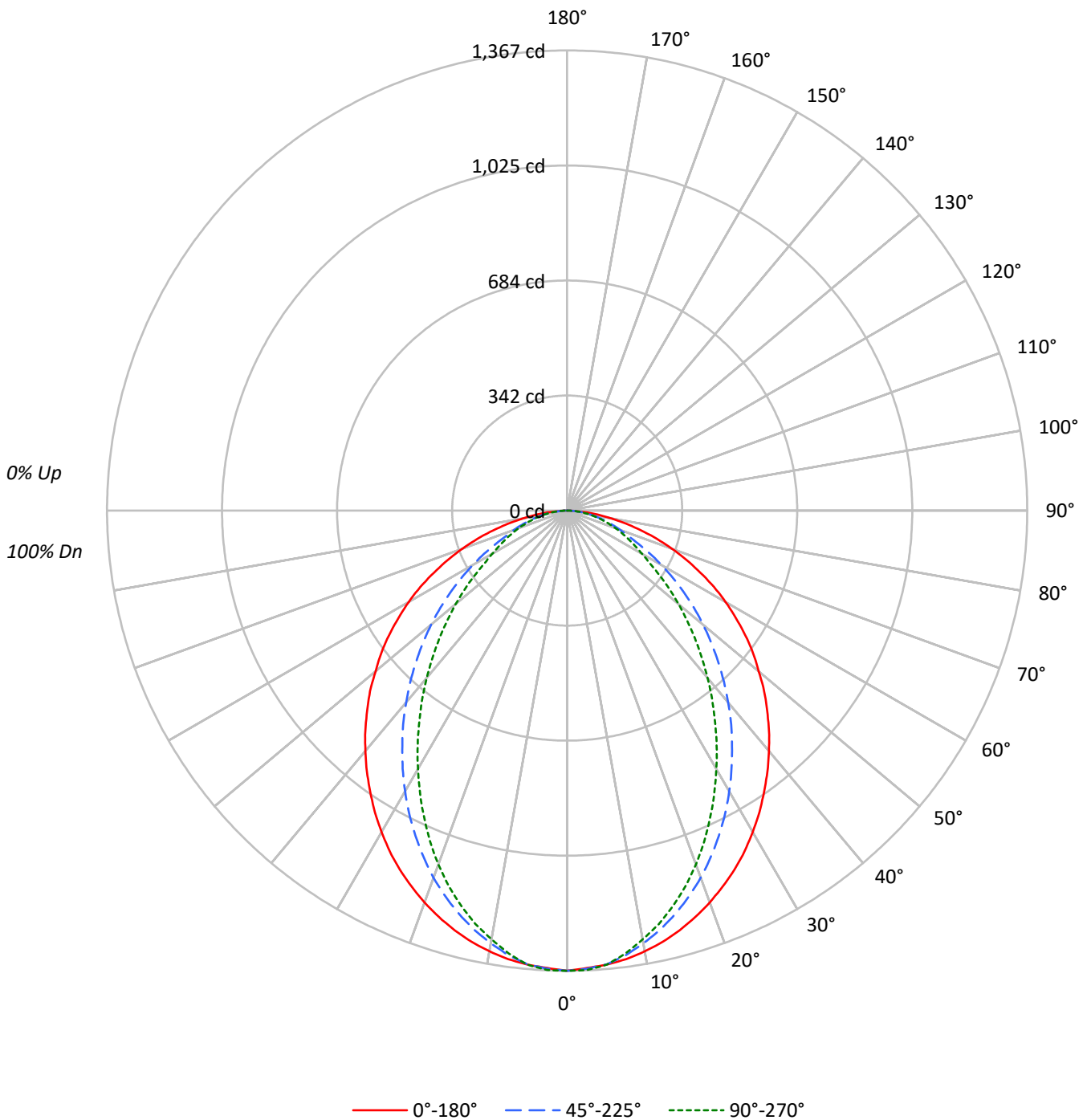
Lumens per Lamp: N/A
Luminaire Lumens: 2897.7 lumens
Efficiency: N/A
Efficacy: 83.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9665	9665	9665
5°	9608	9601	9608
10°	9544	9369	9281
15°	9447	9082	8896
20°	9320	8730	8417
25°	9179	8314	7845
30°	9000	7861	7238
35°	8803	7371	6606
40°	8605	6868	5985
45°	8397	6340	5364
50°	8173	5799	4747
55°	7967	5207	4128
60°	7686	4577	3627
65°	7305	3882	3372
70°	6860	3472	3156
75°	6200	3198	2974
80°	5386	2903	2776
85°	4210	2563	2563

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8397 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.9	4.4
10°-20°	351.2	12.1
20°-30°	496.1	17.1
30°-40°	546.2	18.8
40°-50°	509.5	17.6
50°-60°	406.7	14.0
60°-70°	273.7	9.4
70°-80°	145.8	5.0
80°-90°	40.5	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°	975.3	33.7
0°-40°	1521.5	52.5
0°-60°	2437.7	84.1
0°-90°	2897.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2897.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1367	1367	1367	1367	1367	
5°	1354	1365	1353	1349	1354	128
15°	1291	1284	1241	1220	1216	364
25°	1177	1141	1066	1019	1006	542
35°	1020	960	854	787	766	638
45°	840	760	634	557	536	648
55°	646	549	422	355	335	577
65°	437	341	232	206	202	433
75°	227	151	117	110	109	242
85°	52	36	32	33	32	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1367.2	1367.2	1367.2	1367.2	1367.2
2.5°	1360.1	1371.3	1362.1	1364.1	1366.2
5°	1353.9	1365.1	1352.9	1348.9	1353.9
7.5°	1343.8	1352.9	1332.6	1323.4	1327.5
10°	1329.5	1335.6	1305.1	1292.9	1292.9
12.5°	1312.2	1312.2	1275.6	1258.3	1258.3
15°	1290.8	1283.7	1240.9	1219.6	1215.5
17.5°	1266.4	1253.2	1202.3	1174.8	1169.7
20°	1238.9	1217.5	1160.5	1124.9	1118.8
22.5°	1208.4	1180.9	1114.7	1070.9	1063.8
25°	1176.8	1141.2	1065.9	1019.0	1005.8
27.5°	1141.2	1098.4	1016.0	963.0	946.7
30°	1102.5	1053.6	963.0	904.0	886.7
32.5°	1062.8	1007.8	909.1	846.0	826.6
35°	1020.0	960.0	854.1	786.9	765.5
37.5°	977.3	912.1	800.2	729.9	707.5
40°	932.5	861.2	744.2	671.9	648.5
42.5°	887.7	811.3	689.2	615.9	591.5
45°	839.9	760.4	634.2	556.8	536.5
47.5°	794.0	708.5	580.3	504.9	482.5
50°	743.1	654.6	527.3	452.0	431.6
52.5°	696.3	601.6	474.4	404.1	382.8
55°	646.4	548.7	422.5	355.3	334.9
57.5°	594.5	495.8	372.6	309.5	290.1
60°	543.6	442.8	323.7	265.7	256.5
62.5°	491.7	392.9	277.9	233.1	227.0
65°	436.7	341.0	232.1	205.6	201.6
67.5°	384.8	291.1	195.5	180.2	176.1
70°	331.9	241.3	168.0	154.7	152.7
72.5°	280.0	193.4	141.5	132.3	130.3
75°	227.0	150.7	117.1	109.9	108.9
77.5°	178.2	113.0	92.6	89.6	87.5
80°	132.3	84.5	71.3	69.2	68.2
82.5°	90.6	58.0	50.9	50.9	48.9
85°	51.9	35.6	31.6	32.6	31.6
87.5°	19.3	15.3	14.3	15.3	15.3
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	19.17	20.71	19.54	21.02	21.34	15.55	17.09	15.92	17.41	17.72
	3H	20.96	22.34	21.33	22.67	23.03	17.03	18.41	17.41	18.74	19.10
	4H	21.61	22.91	22.01	23.26	23.63	17.62	18.92	18.02	19.27	19.64
	6H	22.09	23.29	22.50	23.65	24.04	18.08	19.28	18.49	19.65	20.04
	8H	22.24	23.38	22.67	23.77	24.17	18.24	19.39	18.67	19.77	20.18
	12H	22.33	23.43	22.76	23.81	24.24	18.36	19.45	18.79	19.83	20.26
4H	2H	19.30	20.60	19.70	20.95	21.33	16.23	17.53	16.63	17.88	18.25
	3H	21.27	22.36	21.69	22.75	23.16	17.91	18.99	18.32	19.39	19.79
	4H	22.02	22.99	22.45	23.41	23.85	18.61	19.58	19.04	20.00	20.44
	6H	22.61	23.46	23.07	23.90	24.36	19.19	20.04	19.65	20.48	20.94
	8H	22.82	23.61	23.28	24.06	24.52	19.40	20.20	19.87	20.64	21.11
	12H	22.97	23.68	23.45	24.16	24.63	19.56	20.27	20.05	20.75	21.22
8H	4H	22.08	22.88	22.55	23.32	23.79	18.97	19.77	19.44	20.21	20.68
	6H	22.74	23.40	23.24	23.89	24.37	19.67	20.33	20.17	20.82	21.30
	8H	23.00	23.59	23.51	24.09	24.58	19.96	20.55	20.47	21.06	21.54
	12H	23.20	23.73	23.71	24.22	24.78	20.20	20.72	20.71	21.21	21.78
12H	4H	22.08	22.79	22.56	23.26	23.73	19.02	19.73	19.50	20.21	20.68
	6H	22.74	23.33	23.25	23.84	24.32	19.75	20.34	20.26	20.85	21.33
	8H	23.03	23.55	23.54	24.04	24.61	20.09	20.61	20.60	21.10	21.67