

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: P1056381

Luminaire Tested: S125R3DR-S1090D940-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056381
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-S1090D940-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

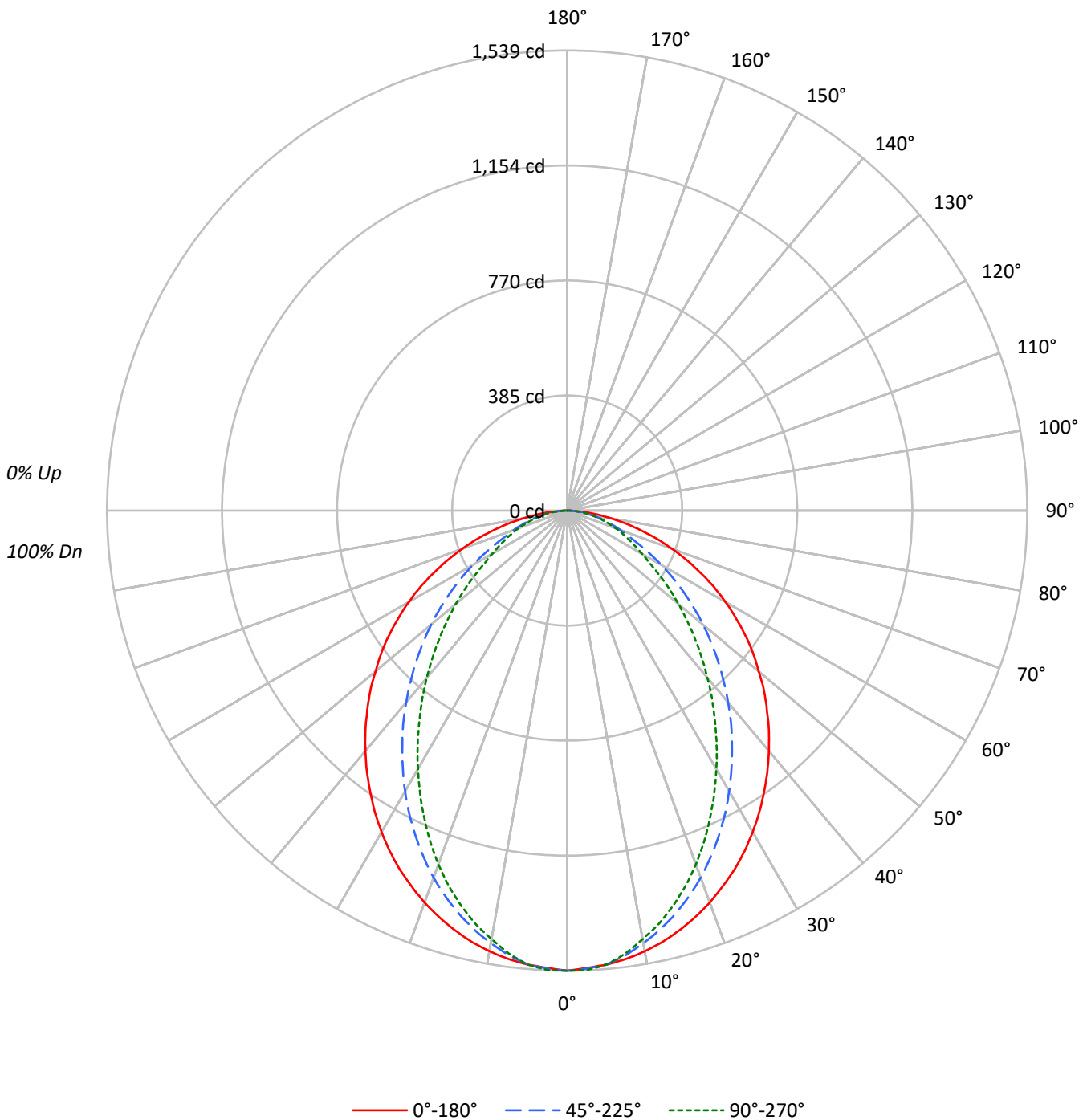
Lumens per Lamp: N/A
Luminaire Lumens: 3261.8 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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	30	42	35	30	41	35	30	40	34	30	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10880	10880	10880
5°	10816	10807	10816
10°	10743	10546	10447
15°	10634	10224	10013
20°	10492	9827	9475
25°	10333	9359	8831
30°	10130	8849	8147
35°	9909	8297	7437
40°	9686	7731	6736
45°	9452	7137	6038
50°	9200	6528	5344
55°	8969	5862	4647
60°	8651	5152	4083
65°	8223	4371	3795
70°	7722	3909	3553
75°	6979	3600	3349
80°	6066	3265	3127
85°	4737	2879	2879

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9452 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.0	4.4
10°-20°	395.4	12.1
20°-30°	558.5	17.1
30°-40°	614.8	18.8
40°-50°	573.5	17.6
50°-60°	457.8	14.0
60°-70°	308.1	9.4
70°-80°	164.1	5.0
80°-90°	45.6	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°	1097.8	33.7
0°-40°	1712.7	52.5
0°-60°	2744.0	84.1
0°-90°	3261.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3261.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1539	1539	1539	1539	1539	
5°	1524	1537	1523	1518	1524	145
15°	1453	1445	1397	1373	1368	410
25°	1325	1285	1200	1147	1132	610
35°	1148	1081	961	886	862	718
45°	945	856	714	627	604	730
55°	728	618	476	400	377	650
65°	492	384	261	232	227	488
75°	256	170	132	124	123	272
85°	58	40	36	37	36	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1539.0	1539.0	1539.0	1539.0	1539.0
2.5°	1530.9	1543.5	1533.2	1535.5	1537.8
5°	1524.1	1536.7	1522.9	1518.3	1524.1
7.5°	1512.6	1522.9	1500.0	1489.7	1494.3
10°	1496.6	1503.4	1469.1	1455.3	1455.3
12.5°	1477.1	1477.1	1435.8	1416.3	1416.3
15°	1453.0	1445.0	1396.9	1372.8	1368.2
17.5°	1425.5	1410.6	1353.3	1322.4	1316.6
20°	1394.6	1370.5	1306.3	1266.2	1259.4
22.5°	1360.2	1329.3	1254.8	1205.5	1197.5
25°	1324.7	1284.6	1199.8	1147.1	1132.2
27.5°	1284.6	1236.4	1143.6	1084.0	1065.7
30°	1241.0	1186.0	1084.0	1017.6	998.1
32.5°	1196.3	1134.4	1023.3	952.2	930.5
35°	1148.2	1080.6	961.4	885.8	861.7
37.5°	1100.1	1026.7	900.7	821.6	796.4
40°	1049.6	969.4	837.7	756.3	729.9
42.5°	999.2	913.3	775.8	693.3	665.8
45°	945.4	856.0	713.9	626.8	603.9
47.5°	893.8	797.6	653.2	568.4	543.2
50°	836.5	736.8	593.6	508.8	485.9
52.5°	783.8	677.2	534.0	454.9	430.9
55°	727.7	617.6	475.6	399.9	377.0
57.5°	669.2	558.1	419.4	348.4	326.6
60°	611.9	498.5	364.4	299.1	288.8
62.5°	553.5	442.3	312.8	262.4	255.5
65°	491.6	383.9	261.3	231.5	226.9
67.5°	433.2	327.7	220.0	202.8	198.2
70°	373.6	271.6	189.1	174.2	171.9
72.5°	315.1	217.7	159.3	149.0	146.7
75°	255.5	169.6	131.8	123.8	122.6
77.5°	200.5	127.2	104.3	100.8	98.5
80°	149.0	95.1	80.2	77.9	76.8
82.5°	102.0	65.3	57.3	57.3	55.0
85°	58.4	40.1	35.5	36.7	35.5
87.5°	21.8	17.2	16.0	17.2	17.2
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	19.58	21.12	19.95	21.43	21.75	15.96	17.50	16.33	17.82	18.13
	3H	21.37	22.75	21.74	23.08	23.44	17.44	18.82	17.82	19.15	19.51
	4H	22.02	23.32	22.42	23.67	24.05	18.03	19.33	18.43	19.68	20.06
	6H	22.50	23.70	22.91	24.06	24.46	18.49	19.69	18.90	20.06	20.45
	8H	22.65	23.79	23.08	24.18	24.58	18.65	19.80	19.08	20.19	20.59
	12H	22.75	23.84	23.18	24.22	24.65	18.77	19.86	19.20	20.24	20.67
4H	2H	19.72	21.02	20.12	21.36	21.74	16.64	17.94	17.04	18.29	18.67
	3H	21.69	22.77	22.10	23.17	23.57	18.32	19.40	18.73	19.80	20.20
	4H	22.43	23.41	22.86	23.82	24.26	19.02	19.99	19.45	20.41	20.85
	6H	23.03	23.87	23.48	24.32	24.77	19.61	20.45	20.06	20.90	21.36
	8H	23.23	24.02	23.69	24.47	24.94	19.81	20.61	20.28	21.05	21.52
	12H	23.38	24.09	23.86	24.57	25.04	19.98	20.68	20.46	21.16	21.63
8H	4H	22.49	23.29	22.96	23.73	24.20	19.39	20.18	19.85	20.62	21.09
	6H	23.15	23.81	23.65	24.30	24.78	20.09	20.74	20.58	21.23	21.71
	8H	23.41	24.00	23.92	24.51	24.99	20.37	20.96	20.88	21.47	21.96
	12H	23.62	24.14	24.13	24.63	25.19	20.61	21.13	21.12	21.63	22.19
12H	4H	22.49	23.20	22.97	23.67	24.15	19.43	20.14	19.91	20.62	21.09
	6H	23.15	23.74	23.66	24.25	24.74	20.16	20.75	20.67	21.26	21.74
	8H	23.44	23.96	23.95	24.46	25.02	20.50	21.02	21.01	21.51	22.08