

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: P1056366

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056366
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-S1090D840-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, 80 CRI LEDS
Ballast/Driver: -

Summary

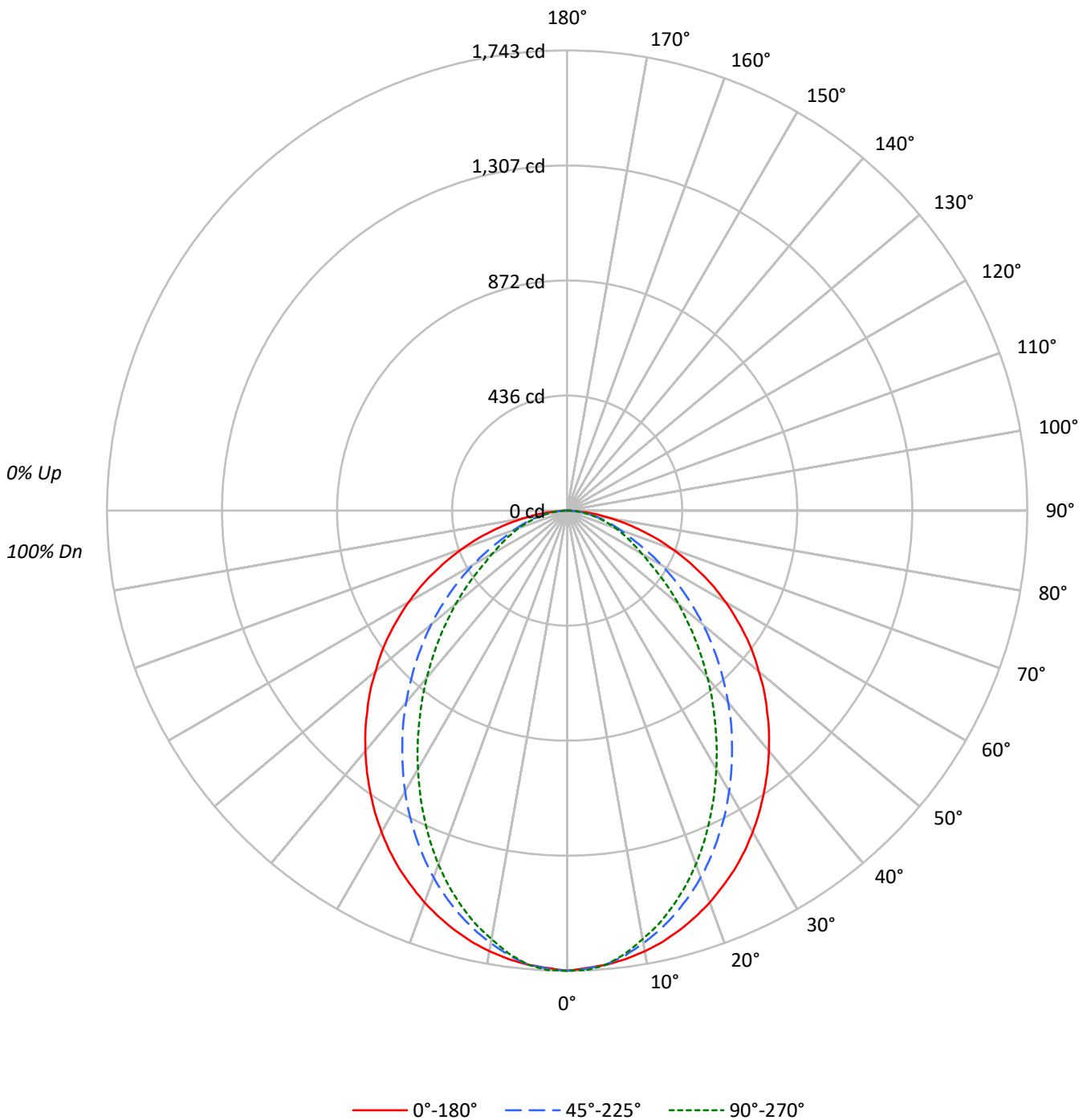
Lumens per Lamp: N/A
Luminaire Lumens: 3694.0 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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	30	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12321	12321	12321
5°	12248	12239	12248
10°	12167	11943	11831
15°	12043	11577	11340
20°	11882	11130	10729
25°	11702	10598	10001
30°	11473	10022	9227
35°	11222	9396	8422
40°	10970	8755	7629
45°	10703	8083	6837
50°	10419	7393	6051
55°	10157	6638	5263
60°	9798	5835	4623
65°	9312	4950	4299
70°	8745	4425	4024
75°	7905	4075	3794
80°	6868	3697	3538
85°	5370	3261	3261

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10703 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.1	4.4
10°-20°	447.8	12.1
20°-30°	632.5	17.1
30°-40°	696.3	18.8
40°-50°	649.5	17.6
50°-60°	518.5	14.0
60°-70°	348.9	9.4
70°-80°	185.8	5.0
80°-90°	51.7	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°	1243.3	33.7
0°-40°	1939.6	52.5
0°-60°	3107.6	84.1
0°-90°	3694.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3694.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1743	1743	1743	1743	1743	
5°	1726	1740	1725	1720	1726	164
15°	1646	1636	1582	1555	1550	464
25°	1500	1455	1359	1299	1282	691
35°	1300	1224	1089	1003	976	814
45°	1071	969	808	710	684	827
55°	824	700	539	453	427	736
65°	557	435	296	262	257	552
75°	289	192	149	140	139	308
85°	66	45	40	42	40	79
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1742.9	1742.9	1742.9	1742.9	1742.9
2.5°	1733.8	1748.1	1736.4	1739.0	1741.6
5°	1726.0	1740.3	1724.7	1719.5	1726.0
7.5°	1713.0	1724.7	1698.7	1687.1	1692.3
10°	1694.9	1702.6	1663.7	1648.1	1648.1
12.5°	1672.8	1672.8	1626.1	1604.0	1604.0
15°	1645.5	1636.5	1581.9	1554.7	1549.5
17.5°	1614.4	1597.5	1532.6	1497.6	1491.1
20°	1579.4	1552.1	1479.4	1434.0	1426.2
22.5°	1540.4	1505.4	1421.0	1365.2	1356.1
25°	1500.2	1454.8	1358.7	1299.0	1282.2
27.5°	1454.8	1400.3	1295.1	1227.7	1206.9
30°	1405.5	1343.2	1227.7	1152.4	1130.3
32.5°	1354.8	1284.8	1158.9	1078.4	1053.8
35°	1300.3	1223.8	1088.8	1003.2	975.9
37.5°	1245.8	1162.8	1020.0	930.5	901.9
40°	1188.7	1097.9	948.7	856.5	826.7
42.5°	1131.6	1034.3	878.6	785.1	754.0
45°	1070.6	969.4	808.5	709.9	683.9
47.5°	1012.2	903.2	739.7	643.7	615.1
50°	947.4	834.4	672.2	576.2	550.2
52.5°	887.7	767.0	604.7	515.2	488.0
55°	824.1	699.5	538.6	452.9	427.0
57.5°	757.9	632.0	475.0	394.5	369.9
60°	693.0	564.5	412.7	338.7	327.0
62.5°	626.8	500.9	354.3	297.2	289.4
65°	556.7	434.7	295.9	262.1	257.0
67.5°	490.5	371.2	249.2	229.7	224.5
70°	423.1	307.6	214.1	197.3	194.7
72.5°	356.9	246.6	180.4	168.7	166.1
75°	289.4	192.1	149.2	140.2	138.9
77.5°	227.1	144.0	118.1	114.2	111.6
80°	168.7	107.7	90.8	88.2	86.9
82.5°	115.5	74.0	64.9	64.9	62.3
85°	66.2	45.4	40.2	41.5	40.2
87.5°	24.7	19.5	18.2	19.5	19.5
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	20.01	21.55	20.38	21.87	22.18	16.40	17.94	16.76	18.25	18.56
	3H	21.80	23.18	22.18	23.51	23.87	17.87	19.26	18.25	19.58	19.94
	4H	22.45	23.75	22.85	24.10	24.48	18.46	19.76	18.86	20.11	20.49
	6H	22.93	24.13	23.34	24.50	24.89	18.92	20.13	19.34	20.49	20.88
	8H	23.08	24.23	23.51	24.62	25.02	19.08	20.23	19.51	20.62	21.02
	12H	23.18	24.27	23.61	24.66	25.08	19.20	20.29	19.63	20.68	21.11
4H	2H	20.15	21.45	20.55	21.80	22.17	17.07	18.37	17.47	18.72	19.10
	3H	22.12	23.20	22.53	23.60	24.00	18.75	19.83	19.16	20.23	20.63
	4H	22.86	23.84	23.30	24.25	24.69	19.45	20.43	19.89	20.84	21.28
	6H	23.46	24.31	23.91	24.75	25.21	20.04	20.89	20.50	21.33	21.79
	8H	23.66	24.46	24.13	24.90	25.37	20.25	21.04	20.71	21.48	21.95
	12H	23.81	24.52	24.29	25.00	25.47	20.41	21.12	20.89	21.59	22.07
8H	4H	22.93	23.72	23.39	24.16	24.63	19.82	20.61	20.28	21.05	21.52
	6H	23.59	24.24	24.08	24.73	25.21	20.52	21.17	21.01	21.67	22.14
	8H	23.84	24.43	24.35	24.94	25.43	20.80	21.39	21.32	21.90	22.39
	12H	24.05	24.57	24.56	25.06	25.63	21.04	21.57	21.55	22.06	22.62
12H	4H	22.92	23.63	23.40	24.11	24.58	19.86	20.57	20.35	21.05	21.52
	6H	23.58	24.17	24.09	24.68	25.17	20.59	21.18	21.10	21.69	22.18
	8H	23.87	24.40	24.38	24.89	25.45	20.93	21.45	21.44	21.95	22.51