

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059120

Luminaire Tested: S123RDR-S1165D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

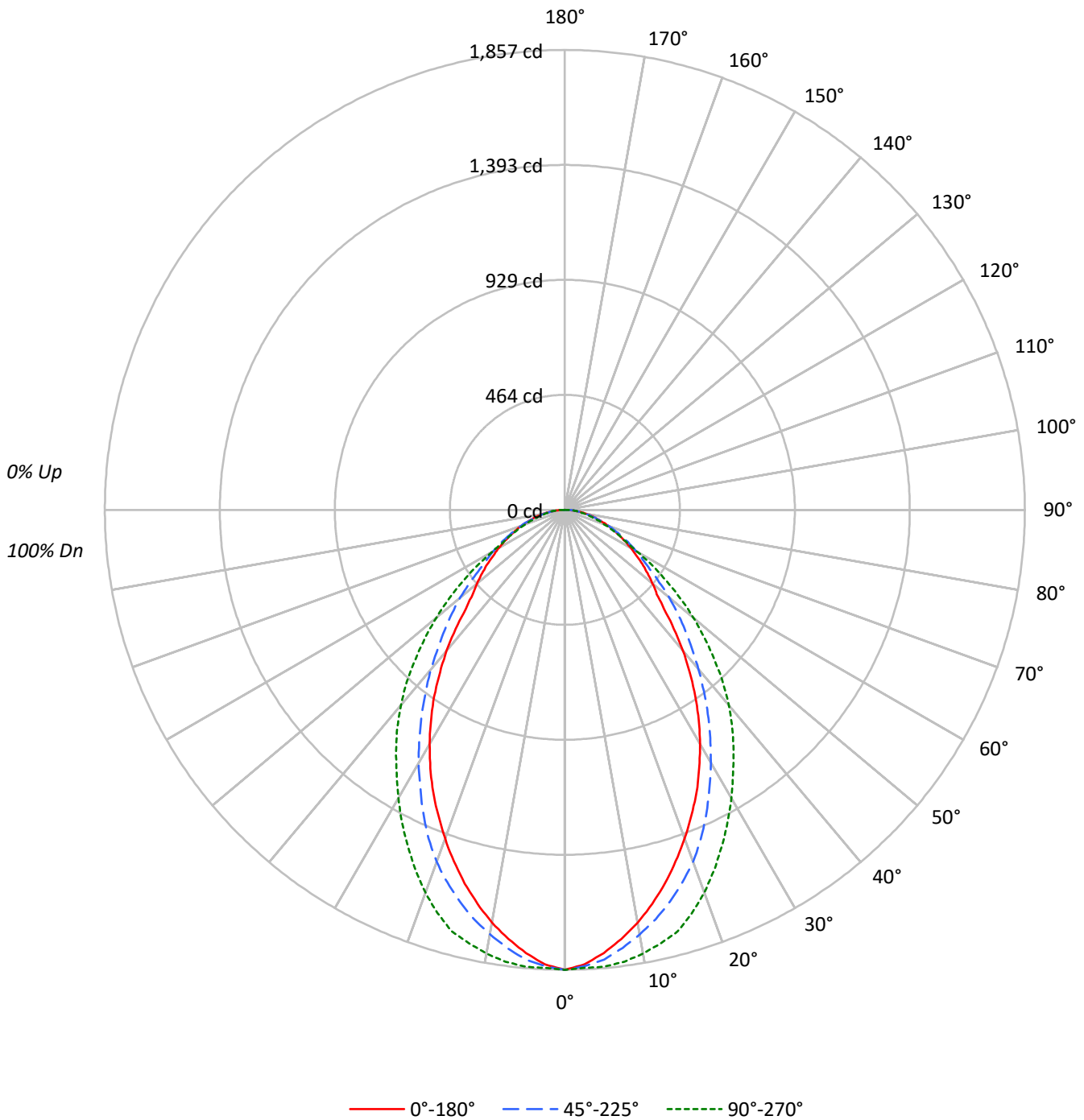
Test Method: LM-79-2019  
Report Number: P1059120  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1165D850-X4F0-XX-UDD-WVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3263.9 lumens  
Efficiency: N/A  
Efficacy: 78.1 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09  
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				32

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	21810	21810	21810
5°	21178	21480	21818
10°	20184	20755	21690
15°	18985	19917	21414
20°	17657	18897	20553
25°	16299	17521	19427
30°	14804	15996	18227
35°	13175	14435	17026
40°	11369	12864	15779
45°	9398	11387	14149
50°	8440	10046	12353
55°	7820	8574	10242
60°	7208	7809	7846
65°	6707	7063	6574
70°	6310	6420	5761
75°	5948	5730	5077
80°	5619	5187	4754
85°	5389	5820	5389

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 14149 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.0	5.3
10°-20°	463.5	14.2
20°-30°	627.0	19.2
30°-40°	644.3	19.7
40°-50°	541.1	16.6
50°-60°	387.9	11.9
60°-70°	247.0	7.6
70°-80°	135.7	4.2
80°-90°	45.3	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°	1262.5	38.7
0°-40°	1906.8	58.4
0°-60°	2835.9	86.9
0°-90°	3263.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3263.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1857	1857	1857	1857	1857	
5°	1797	1829	1822	1835	1851	168
15°	1562	1605	1638	1709	1762	438
25°	1258	1306	1352	1426	1499	577
35°	919	969	1007	1097	1188	572
45°	566	615	686	785	852	447
55°	382	390	419	475	500	341
65°	241	256	254	240	237	241
75°	131	144	126	117	112	139
85°	40	42	43	45	40	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1857.4	1857.4	1857.4	1857.4	1857.4
2.5°	1836.6	1862.2	1844.6	1846.2	1851.0
5°	1796.7	1828.7	1822.3	1835.0	1851.0
7.5°	1747.1	1782.3	1783.9	1814.3	1839.8
10°	1692.8	1729.5	1740.7	1787.1	1819.1
12.5°	1628.8	1668.8	1692.8	1750.3	1791.9
15°	1561.7	1604.9	1638.4	1708.8	1761.5
17.5°	1488.2	1534.5	1577.7	1652.8	1707.2
20°	1413.0	1462.6	1512.2	1582.5	1644.8
22.5°	1334.7	1385.9	1437.0	1505.8	1574.5
25°	1258.0	1306.0	1352.3	1425.8	1499.4
27.5°	1174.9	1224.4	1264.4	1345.9	1422.6
30°	1091.8	1141.3	1179.7	1264.4	1344.3
32.5°	1005.4	1056.6	1091.8	1179.7	1262.8
35°	919.1	968.7	1007.0	1096.6	1187.7
37.5°	828.0	882.4	920.7	1021.4	1110.9
40°	741.7	792.8	839.2	944.7	1029.4
42.5°	652.2	704.9	757.7	866.4	944.7
45°	565.9	615.4	685.7	784.8	852.0
47.5°	503.5	535.5	617.0	700.1	764.1
50°	462.0	474.7	549.9	623.4	676.2
52.5°	420.4	430.0	481.1	548.3	588.2
55°	382.0	390.0	418.8	474.7	500.3
57.5°	340.5	348.5	372.4	404.4	418.8
60°	306.9	313.3	332.5	337.3	334.1
62.5°	273.3	282.9	292.5	281.3	276.5
65°	241.4	255.8	254.2	239.8	236.6
67.5°	212.6	227.0	219.0	204.6	199.8
70°	183.8	198.2	187.0	172.6	167.8
72.5°	156.7	172.6	155.1	142.3	139.1
75°	131.1	143.9	126.3	116.7	111.9
77.5°	107.1	116.7	100.7	92.7	89.5
80°	83.1	89.5	76.7	71.9	70.3
82.5°	60.7	63.9	55.9	59.1	57.5
85°	40.0	41.6	43.2	44.8	40.0
87.5°	19.2	27.2	27.2	25.6	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)