

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: P1059102

Luminaire Tested: S123RDR-S1165D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059102
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-S1165D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

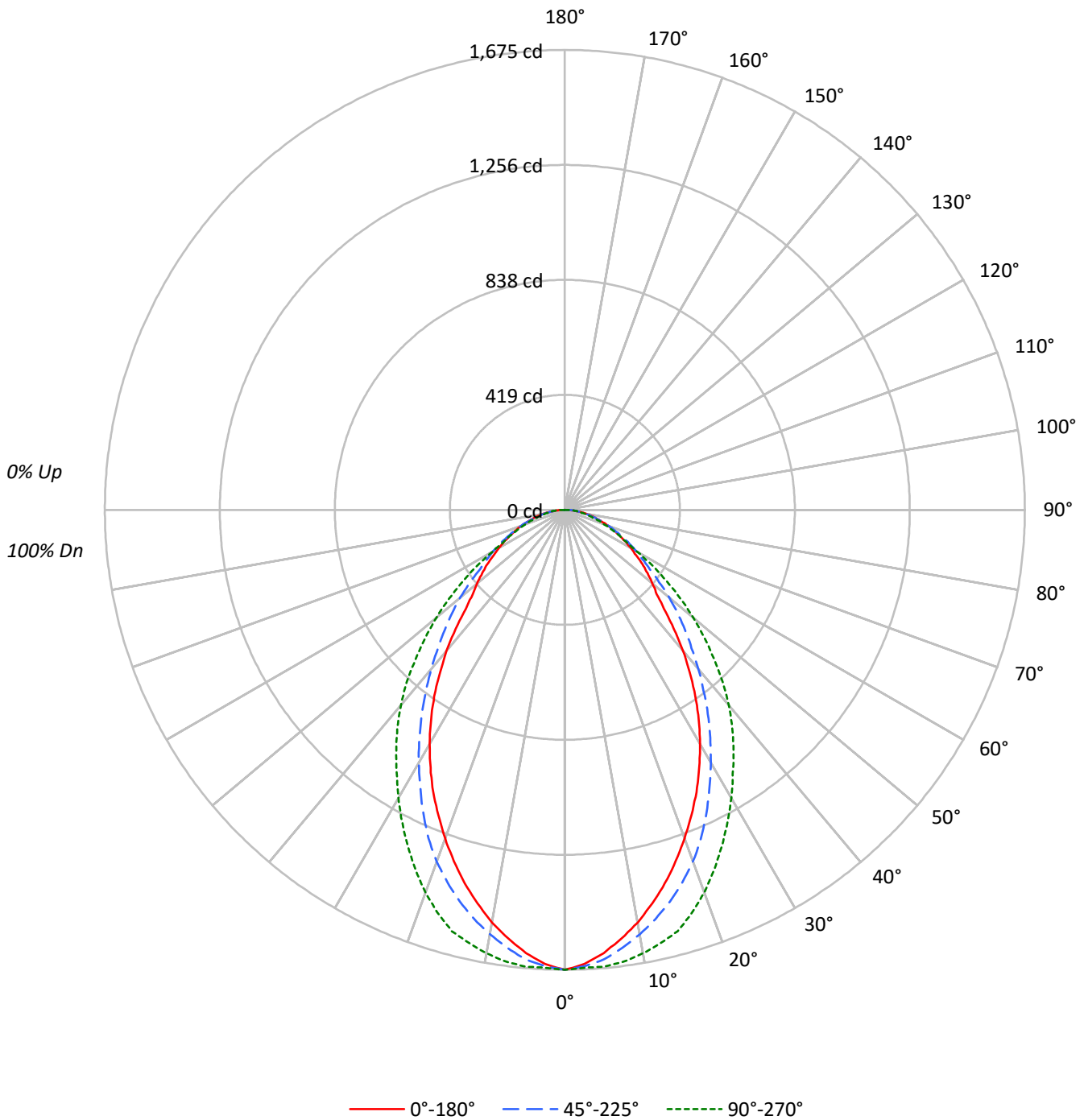
Lumens per Lamp: N/A
Luminaire Lumens: 2943.0 lumens
Efficiency: N/A
Efficacy: 70.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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				
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19667	19667	19667
5°	19097	19369	19674
10°	18200	18715	19558
15°	17119	17960	19310
20°	15922	17038	18534
25°	14698	15799	17517
30°	13349	14423	16436
35°	11881	13017	15351
40°	10252	11599	14228
45°	8473	10268	12757
50°	7610	9057	11138
55°	7053	7730	9235
60°	6498	7041	7074
65°	6046	6368	5927
70°	5692	5788	5195
75°	5363	5168	4578
80°	5072	4679	4287
85°	4850	5241	4850

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12757 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.1	5.3
10°-20°	417.9	14.2
20°-30°	565.4	19.2
30°-40°	581.0	19.7
40°-50°	487.9	16.6
50°-60°	349.8	11.9
60°-70°	222.7	7.6
70°-80°	122.4	4.2
80°-90°	40.8	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°	1138.4	38.7
0°-40°	1719.4	58.4
0°-60°	2557.1	86.9
0°-90°	2943.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2943.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1675	1675	1675	1675	1675	
5°	1620	1649	1643	1655	1669	152
15°	1408	1447	1477	1541	1588	395
25°	1134	1178	1219	1286	1352	520
35°	829	874	908	989	1071	516
45°	510	555	618	708	768	403
55°	344	352	378	428	451	308
65°	218	231	229	216	213	217
75°	118	130	114	105	101	126
85°	36	38	39	40	36	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1674.9	1674.9	1674.9	1674.9	1674.9
2.5°	1656.1	1679.2	1663.3	1664.8	1669.1
5°	1620.1	1648.9	1643.2	1654.7	1669.1
7.5°	1575.4	1607.1	1608.6	1635.9	1659.0
10°	1526.4	1559.6	1569.6	1611.4	1640.3
12.5°	1468.7	1504.8	1526.4	1578.3	1615.8
15°	1408.2	1447.1	1477.4	1540.8	1588.4
17.5°	1341.9	1383.7	1422.6	1490.4	1539.4
20°	1274.2	1318.8	1363.5	1426.9	1483.2
22.5°	1203.5	1249.7	1295.8	1357.8	1419.7
25°	1134.4	1177.6	1219.4	1285.7	1352.0
27.5°	1059.4	1104.1	1140.1	1213.6	1282.8
30°	984.5	1029.1	1063.7	1140.1	1212.2
32.5°	906.6	952.7	984.5	1063.7	1138.7
35°	828.8	873.5	908.1	988.8	1070.9
37.5°	746.6	795.6	830.2	921.0	1001.7
40°	668.8	714.9	756.7	851.8	928.2
42.5°	588.1	635.6	683.2	781.2	851.8
45°	510.2	554.9	618.3	707.7	768.2
47.5°	454.0	482.9	556.4	631.3	689.0
50°	416.6	428.1	495.8	562.1	609.7
52.5°	379.1	387.7	433.9	494.4	530.4
55°	344.5	351.7	377.6	428.1	451.1
57.5°	307.0	314.2	335.8	364.7	377.6
60°	276.7	282.5	299.8	304.1	301.2
62.5°	246.5	255.1	263.8	253.7	249.4
65°	217.6	230.6	229.2	216.2	213.3
67.5°	191.7	204.7	197.5	184.5	180.2
70°	165.8	178.7	168.6	155.7	151.3
72.5°	141.3	155.7	139.8	128.3	125.4
75°	118.2	129.7	113.9	105.2	100.9
77.5°	96.6	105.2	90.8	83.6	80.7
80°	75.0	80.7	69.2	64.9	63.4
82.5°	54.8	57.7	50.4	53.3	51.9
85°	36.0	37.5	38.9	40.4	36.0
87.5°	17.3	24.5	24.5	23.1	18.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)