

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P930483

Luminaire Tested: DFN2DS-PN2F0-050DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930483
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333812)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-PN2F0-050DS935-FLL
Description: 2 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

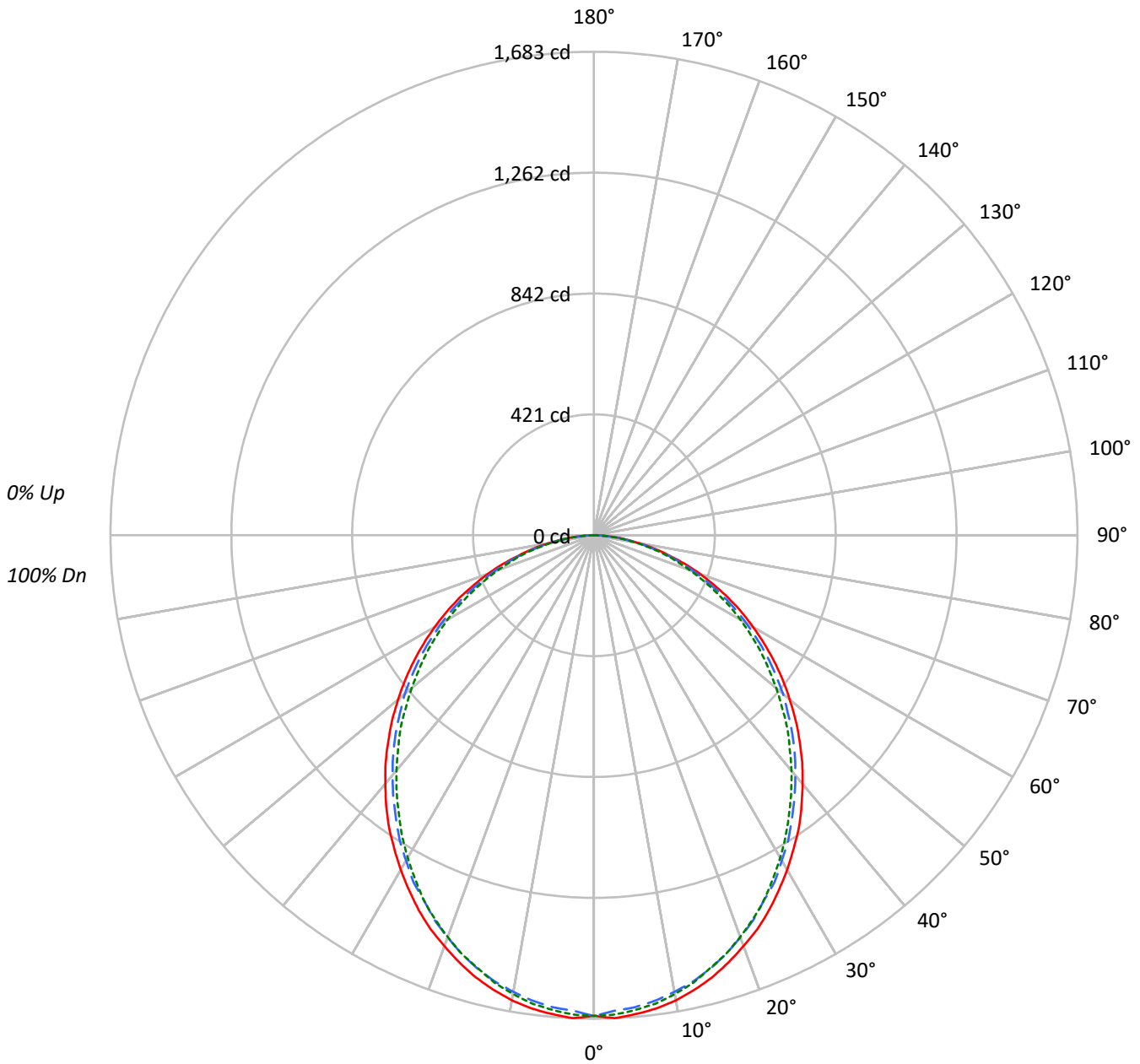
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4257.0 lumens
Efficiency: N/A
Efficacy: 78.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.29' x L: 2.17' x H: 0')
CIE Type: Direct

Input Watts (W): 54
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9821
Total Harmonic Distortion (THDi): 0.08
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



— 0°-180° - - 45°-225° - - - 90°-270°



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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	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	86	86	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	73	73	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	62	62	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	54	54	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	47	47	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	41	41	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	37	37	37	35
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	33	33	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	30	30	30	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	27	27	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3624	3624	3624
5°	3638	3585	3607
10°	3616	3549	3567
15°	3571	3503	3499
20°	3508	3434	3430
25°	3445	3349	3349
30°	3364	3271	3243
35°	3288	3178	3131
40°	3193	3084	3025
45°	3100	2991	2917
50°	2998	2895	2792
55°	2892	2782	2680
60°	2774	2649	2551
65°	2647	2515	2399
70°	2486	2353	2242
75°	2261	2167	2115
80°	2008	1946	1846
85°	1638	1561	1399

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3100 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.5	3.7
10°-20°	443.1	10.4
20°-30°	651.1	15.3
30°-40°	756.3	17.8
40°-50°	755.3	17.7
50°-60°	658.6	15.5
60°-70°	486.9	11.4
70°-80°	275.5	6.5
80°-90°	72.7	1.7
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°	1251.7	29.4
0°-40°	2008.0	47.2
0°-60°	3421.9	80.4
0°-90°	4257.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4257.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1673	1673	1673	1673	1673	
5°	1673	1667	1649	1662	1659	159
15°	1593	1583	1562	1569	1561	449
25°	1442	1429	1401	1404	1401	663
35°	1244	1228	1202	1192	1184	777
45°	1012	1001	976	959	952	781
55°	766	756	737	718	710	685
65°	516	507	491	476	468	511
75°	270	267	259	249	253	288
85°	66	64	63	58	56	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1673.1	1673.1	1673.1	1673.1	1673.1
2.5°	1682.8	1674.8	1657.1	1673.1	1670.1
5°	1673.1	1666.9	1649.0	1661.9	1658.9
7.5°	1661.9	1652.3	1634.6	1647.6	1644.3
10°	1644.3	1633.1	1613.8	1626.5	1621.8
12.5°	1620.1	1610.5	1591.3	1599.3	1596.0
15°	1592.7	1583.2	1562.2	1568.7	1560.6
17.5°	1558.9	1549.4	1528.4	1536.4	1528.4
20°	1521.9	1512.4	1489.9	1494.6	1488.3
22.5°	1485.0	1470.5	1449.5	1449.5	1446.3
25°	1441.5	1428.7	1401.4	1404.5	1401.4
27.5°	1393.2	1381.9	1361.1	1356.3	1348.3
30°	1345.0	1332.1	1308.1	1303.2	1296.8
32.5°	1293.5	1284.0	1258.2	1248.5	1242.0
35°	1243.6	1227.6	1201.8	1192.1	1184.1
37.5°	1187.3	1172.9	1147.1	1135.8	1127.8
40°	1129.5	1116.5	1090.7	1076.4	1069.9
42.5°	1073.2	1060.2	1034.6	1018.3	1008.8
45°	1012.0	1000.8	976.5	959.0	952.4
47.5°	952.4	941.2	915.5	897.7	888.1
50°	889.7	881.7	859.1	836.6	828.5
52.5°	828.5	817.3	796.4	778.7	767.5
55°	765.9	756.2	736.8	717.6	709.6
57.5°	703.0	695.1	674.1	654.8	648.3
60°	640.3	634.0	611.5	593.7	588.9
62.5°	579.2	567.9	551.9	535.8	529.3
65°	516.5	506.8	490.7	476.3	468.2
67.5°	452.2	444.0	429.7	418.4	411.9
70°	392.6	386.1	371.6	360.3	354.1
72.5°	331.5	325.0	317.0	305.7	300.9
75°	270.2	267.1	258.9	249.4	252.7
77.5°	215.6	209.1	205.9	201.1	196.3
80°	161.0	159.3	156.0	151.3	148.0
82.5°	109.4	109.4	107.8	101.4	101.4
85°	65.9	64.3	62.8	57.9	56.3
87.5°	29.0	25.8	22.5	17.7	16.1
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	15.76	17.37	16.12	17.68	18.00	15.31	16.92	15.68	17.24	17.55
	3H	17.51	18.96	17.88	19.29	19.65	17.02	18.47	17.39	18.80	19.16
	4H	18.15	19.52	18.55	19.87	20.25	17.66	19.03	18.06	19.37	19.75
	6H	18.62	19.89	19.03	20.25	20.65	18.12	19.39	18.53	19.75	20.14
	8H	18.76	19.98	19.19	20.36	20.76	18.26	19.47	18.69	19.86	20.26
	12H	18.85	20.01	19.28	20.40	20.83	18.34	19.50	18.77	19.88	20.31
4H	2H	16.32	17.69	16.71	18.03	18.41	15.96	17.33	16.36	17.68	18.06
	3H	18.29	19.44	18.70	19.84	20.24	17.88	19.03	18.29	19.43	19.83
	4H	19.07	20.10	19.50	20.52	20.95	18.64	19.68	19.08	20.09	20.53
	6H	19.66	20.57	20.12	21.01	21.47	19.23	20.14	19.69	20.58	21.03
	8H	19.85	20.70	20.31	21.14	21.61	19.42	20.26	19.88	20.71	21.17
	12H	19.99	20.75	20.47	21.22	21.69	19.53	20.29	20.01	20.77	21.24
8H	4H	19.34	20.19	19.80	20.63	21.10	18.97	19.81	19.43	20.26	20.72
	6H	20.06	20.76	20.55	21.25	21.72	19.67	20.38	20.17	20.87	21.34
	8H	20.31	20.95	20.82	21.45	21.94	19.92	20.55	20.43	21.06	21.55
	12H	20.51	21.07	21.02	21.56	22.12	20.10	20.66	20.61	21.15	21.71
12H	4H	19.37	20.13	19.85	20.60	21.07	19.00	19.76	19.48	20.24	20.71
	6H	20.10	20.73	20.61	21.24	21.73	19.73	20.36	20.24	20.87	21.36
	8H	20.41	20.97	20.92	21.46	22.02	20.04	20.59	20.54	21.09	21.65