

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: P930480

Luminaire Tested: DFN2DS-PN2F0-050DS927-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930480
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333882)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-PN2F0-050DS927-RLL
Description: 2 foot, Pentagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

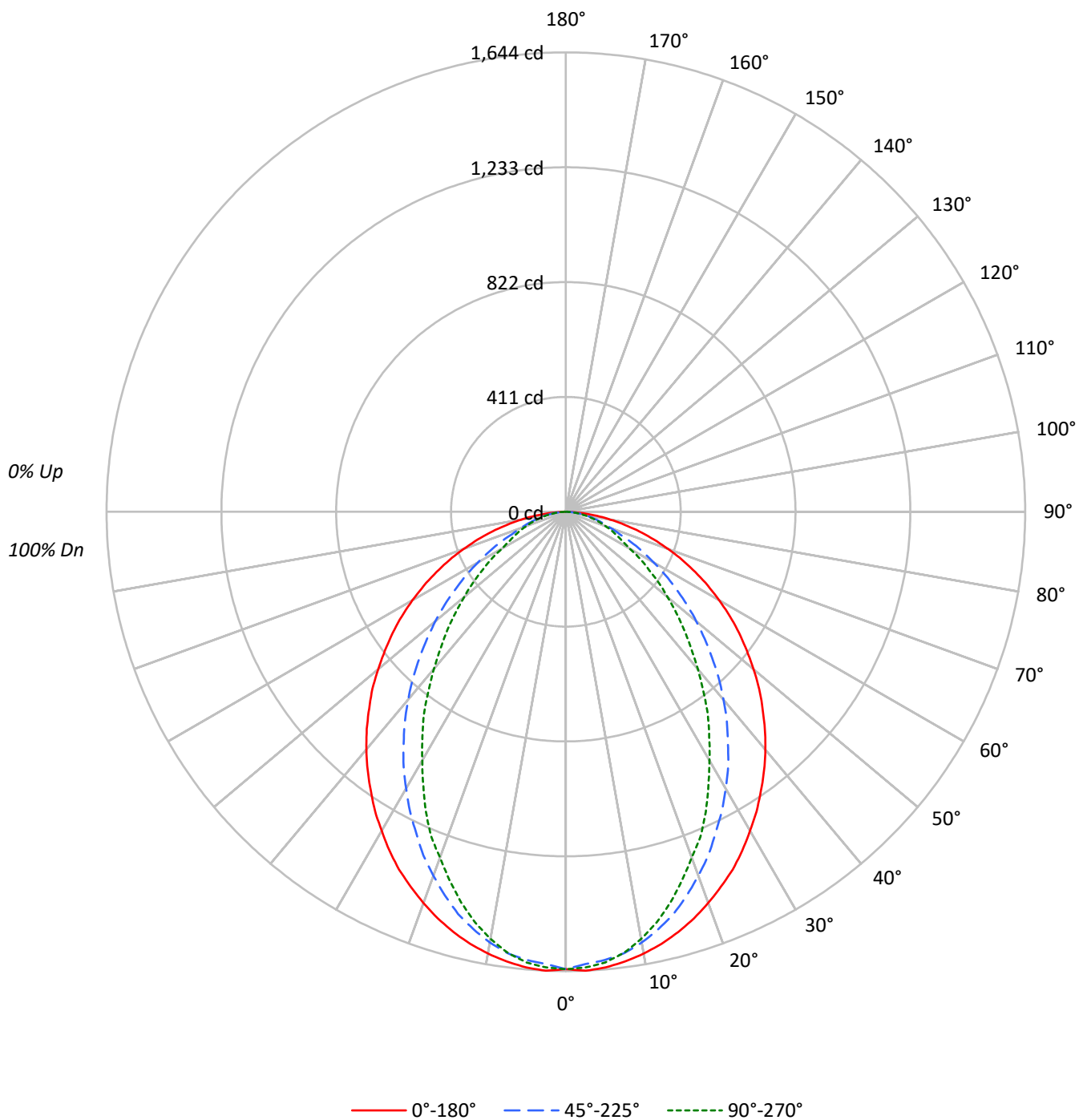
Lumens per Lamp: N/A
Luminaire Lumens: 3366.0 lumens
Efficiency: N/A
Efficacy: 62.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.29' x L: 2.17' x H: 0')
CIE Type: Direct

Input Watts (W): 54
Input Voltage (V):
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



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3545	3545	3545
5°	3558	3500	3520
10°	3531	3443	3414
15°	3491	3341	3245
20°	3434	3195	3035
25°	3377	3030	2831
30°	3297	2860	2571
35°	3219	2675	2342
40°	3141	2483	2077
45°	3049	2268	1837
50°	2955	2051	1602
55°	2858	1817	1376
60°	2746	1572	1142
65°	2619	1321	1040
70°	2467	1088	956
75°	2280	992	893
80°	2013	886	813
85°	1583	698	698

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3049 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.4	4.6
10°-20°	421.1	12.5
20°-30°	591.2	17.6
30°-40°	644.4	19.1
40°-50°	592.3	17.6
50°-60°	465.2	13.8
60°-70°	302.8	9.0
70°-80°	155.9	4.6
80°-90°	39.8	1.2
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°	1165.7	34.6
0°-40°	1810.1	53.8
0°-60°	2867.6	85.2
0°-90°	3366.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3366.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1637	1637	1637	1637	1637	
5°	1637	1629	1610	1623	1619	155
15°	1557	1540	1490	1462	1447	439
25°	1413	1366	1268	1207	1185	650
35°	1218	1142	1012	918	886	762
45°	995	896	741	635	600	769
55°	757	641	481	392	364	676
65°	511	391	258	207	203	507
75°	272	169	118	108	107	288
85°	64	33	28	28	28	76
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1636.7	1636.7	1636.7	1636.7	1636.7
2.5°	1644.0	1636.7	1620.4	1635.2	1632.2
5°	1636.7	1629.3	1610.0	1623.3	1618.9
7.5°	1623.3	1614.5	1593.7	1599.6	1592.2
10°	1605.5	1595.2	1565.6	1561.1	1552.2
12.5°	1583.4	1570.1	1530.0	1521.2	1504.8
15°	1556.7	1540.4	1490.1	1462.0	1447.1
17.5°	1525.6	1501.9	1439.6	1407.1	1383.3
20°	1490.1	1460.4	1386.3	1349.4	1316.7
22.5°	1451.6	1417.4	1331.5	1281.2	1259.0
25°	1413.0	1365.6	1267.8	1207.2	1184.8
27.5°	1367.2	1316.7	1208.6	1139.0	1104.9
30°	1318.3	1261.9	1143.4	1067.9	1027.9
32.5°	1270.8	1202.7	1081.3	992.4	955.3
35°	1217.5	1142.0	1011.7	918.3	885.7
37.5°	1165.7	1084.2	946.5	844.2	807.3
40°	1110.9	1022.1	878.2	773.2	734.7
42.5°	1054.6	959.8	810.2	700.5	663.6
45°	995.4	896.1	740.6	635.3	599.8
47.5°	939.1	834.0	674.0	568.7	536.2
50°	876.9	771.7	608.8	506.5	475.5
52.5°	816.1	705.0	546.6	448.8	420.7
55°	756.8	641.3	481.3	392.5	364.4
57.5°	696.2	577.7	423.6	340.7	317.0
60°	633.9	515.4	362.8	287.4	263.7
62.5°	573.2	454.8	311.0	240.0	228.2
65°	511.0	391.0	257.7	207.4	202.9
67.5°	451.8	331.8	207.4	182.2	177.7
70°	389.6	274.0	171.8	157.0	151.0
72.5°	330.3	220.7	143.7	131.9	128.9
75°	272.5	168.8	118.5	108.1	106.7
77.5°	214.8	119.9	93.4	87.4	84.3
80°	161.4	85.9	71.0	65.2	65.2
82.5°	112.5	57.8	48.9	45.9	45.9
85°	63.7	32.6	28.1	28.1	28.1
87.5°	23.8	11.8	11.8	10.4	10.4
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	15.63	17.15	16.00	17.47	17.78	11.59	13.11	11.96	13.43	13.74
	3H	17.40	18.76	17.77	19.09	19.45	12.86	14.22	13.24	14.55	14.91
	4H	18.06	19.34	18.46	19.69	20.07	13.36	14.64	13.76	14.99	15.37
	6H	18.55	19.74	18.96	20.10	20.49	13.74	14.92	14.15	15.29	15.68
	8H	18.72	19.84	19.14	20.23	20.63	13.86	14.99	14.29	15.38	15.78
	12H	18.82	19.90	19.25	20.28	20.71	13.95	15.02	14.38	15.41	15.83
4H	2H	15.74	17.02	16.14	17.37	17.74	12.29	13.57	12.69	13.92	14.30
	3H	17.67	18.73	18.08	19.13	19.53	13.73	14.79	14.14	15.19	15.59
	4H	18.42	19.38	18.85	19.79	20.23	14.33	15.29	14.76	15.70	16.14
	6H	19.01	19.84	19.47	20.28	20.74	14.82	15.65	15.28	16.09	16.55
	8H	19.22	20.00	19.69	20.45	20.91	14.98	15.76	15.44	16.20	16.67
	12H	19.38	20.07	19.86	20.55	21.02	15.10	15.79	15.58	16.27	16.74
8H	4H	18.44	19.22	18.91	19.66	20.13	14.68	15.46	15.15	15.91	16.37
	6H	19.08	19.72	19.58	20.21	20.69	15.27	15.91	15.77	16.40	16.88
	8H	19.33	19.91	19.84	20.42	20.90	15.49	16.07	16.01	16.58	17.07
	12H	19.53	20.04	20.04	20.54	21.10	15.67	16.18	16.18	16.67	17.24
12H	4H	18.43	19.12	18.91	19.60	20.07	14.73	15.42	15.21	15.90	16.37
	6H	19.06	19.64	19.57	20.15	20.64	15.33	15.91	15.85	16.42	16.91
	8H	19.35	19.85	19.85	20.35	20.91	15.61	16.12	16.12	16.61	17.17