

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: P930282

Luminaire Tested: DFN2DS-HX4F0-050DS927-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930282
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-HX4F0-050DS927-RLL
Description: 4 foot, Hexagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

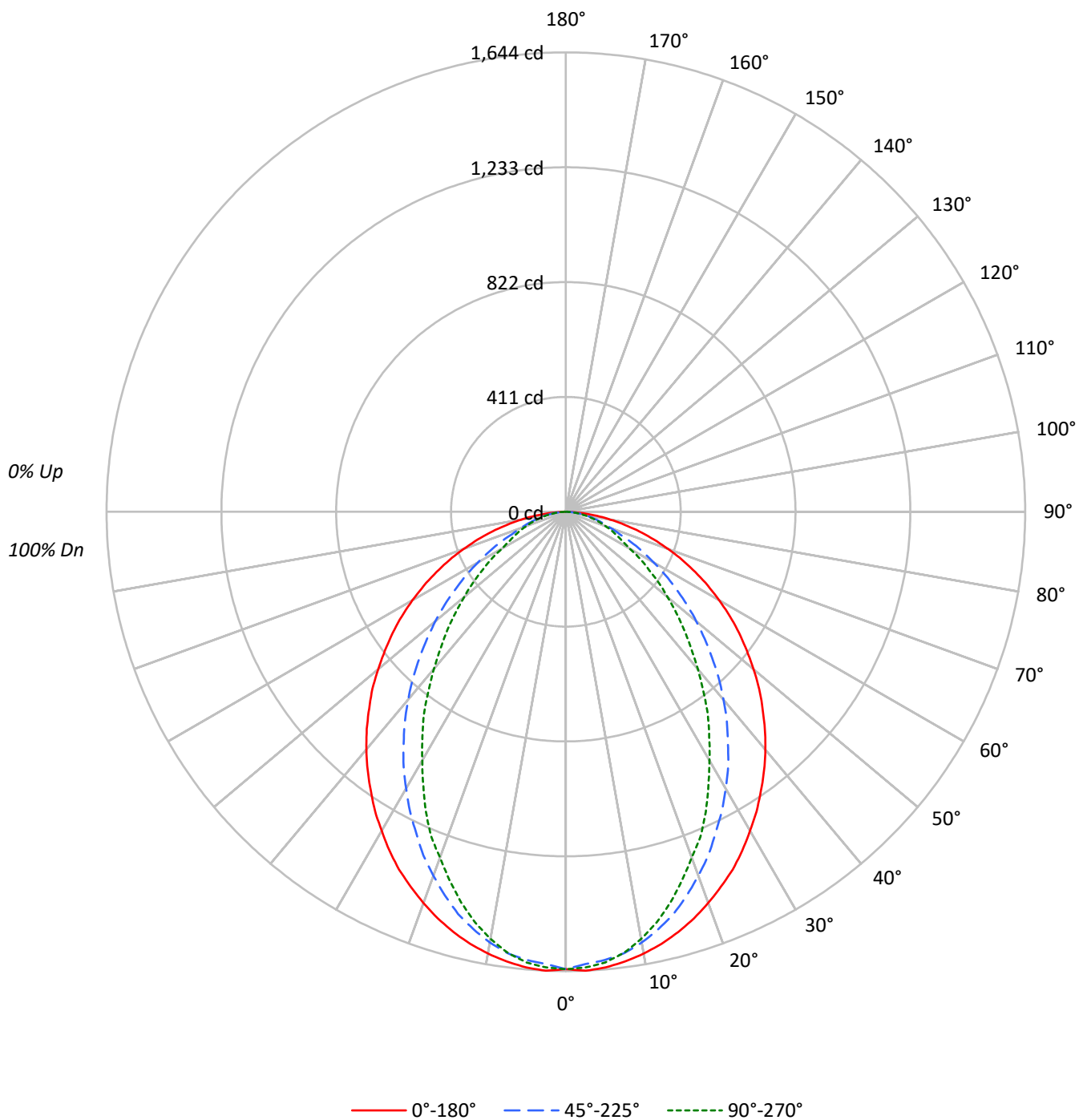
Lumens per Lamp: N/A
Luminaire Lumens: 3366.0 lumens
Efficiency: N/A
Efficacy: 69.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 4.09' x L: 3.54' x H: 0')
CIE Type: Direct

Input Watts (W): 48.5
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9957
Total Harmonic Distortion (THDi): 0.049
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930282

CATALOG NUMBER: DFN2DS-HX4F0-050DS927-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P930282

CATALOG NUMBER: DFN2DS-HX4F0-050DS927-RLL

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°	1217	1217	1217
5°	1222	1202	1208
10°	1212	1182	1172
15°	1198	1147	1114
20°	1179	1097	1042
25°	1159	1040	972
30°	1132	982	883
35°	1105	918	804
40°	1078	852	713
45°	1047	779	631
50°	1014	704	550
55°	981	624	472
60°	943	540	392
65°	899	453	357
70°	847	373	328
75°	783	340	307
80°	691	304	279
85°	543	240	240

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 1047 cd/sqm

TEST NUMBER: P930282

CATALOG NUMBER: DFN2DS-HX4F0-050DS927-RLL

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	

TEST NUMBER: P930282

CATALOG NUMBER: DFN2DS-HX4F0-050DS927-RLL

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

TEST NUMBER: P930282

CATALOG NUMBER: DFN2DS-HX4F0-050DS927-RLL

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	11.92	13.44	12.28	13.75	14.07	7.88	9.40	8.24	9.71	10.03
	3H	13.68	15.05	14.06	15.38	15.74	9.14	10.51	9.52	10.84	11.20
	4H	14.35	15.63	14.75	15.98	16.36	9.64	10.93	10.04	11.27	11.65
	6H	14.84	16.02	15.25	16.39	16.78	10.03	11.21	10.44	11.57	11.97
	8H	15.00	16.13	15.43	16.52	16.92	10.15	11.28	10.58	11.67	12.07
	12H	15.11	16.18	15.54	16.57	17.00	10.23	11.31	10.66	11.69	12.12
4H	2H	12.02	13.30	12.42	13.65	14.03	8.57	9.85	8.97	10.20	10.58
	3H	13.95	15.02	14.37	15.42	15.82	10.02	11.08	10.43	11.48	11.88
	4H	14.70	15.66	15.14	16.08	16.51	10.62	11.57	11.05	11.99	12.43
	6H	15.30	16.13	15.75	16.57	17.03	11.10	11.94	11.56	12.38	12.84
	8H	15.51	16.29	15.97	16.73	17.20	11.27	12.04	11.73	12.49	12.95
	12H	15.66	16.36	16.15	16.84	17.31	11.38	12.08	11.86	12.56	13.03
8H	4H	14.73	15.51	15.19	15.95	16.42	10.97	11.75	11.43	12.19	12.66
	6H	15.37	16.01	15.86	16.50	16.98	11.56	12.20	12.05	12.69	13.17
	8H	15.62	16.19	16.13	16.70	17.19	11.78	12.35	12.29	12.86	13.35
	12H	15.82	16.33	16.33	16.82	17.39	11.96	12.47	12.47	12.96	13.52
12H	4H	14.71	15.41	15.19	15.89	16.36	11.01	11.71	11.50	12.19	12.66
	6H	15.35	15.92	15.86	16.43	16.92	11.62	12.20	12.13	12.71	13.19
	8H	15.63	16.14	16.14	16.63	17.20	11.89	12.40	12.40	12.89	13.46

END OF REPORT