

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: P930101

Luminaire Tested: DFN2DS-HX2F0-050DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930101
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-HX2F0-050DS927-FLL
Description: 2 foot, Hexagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

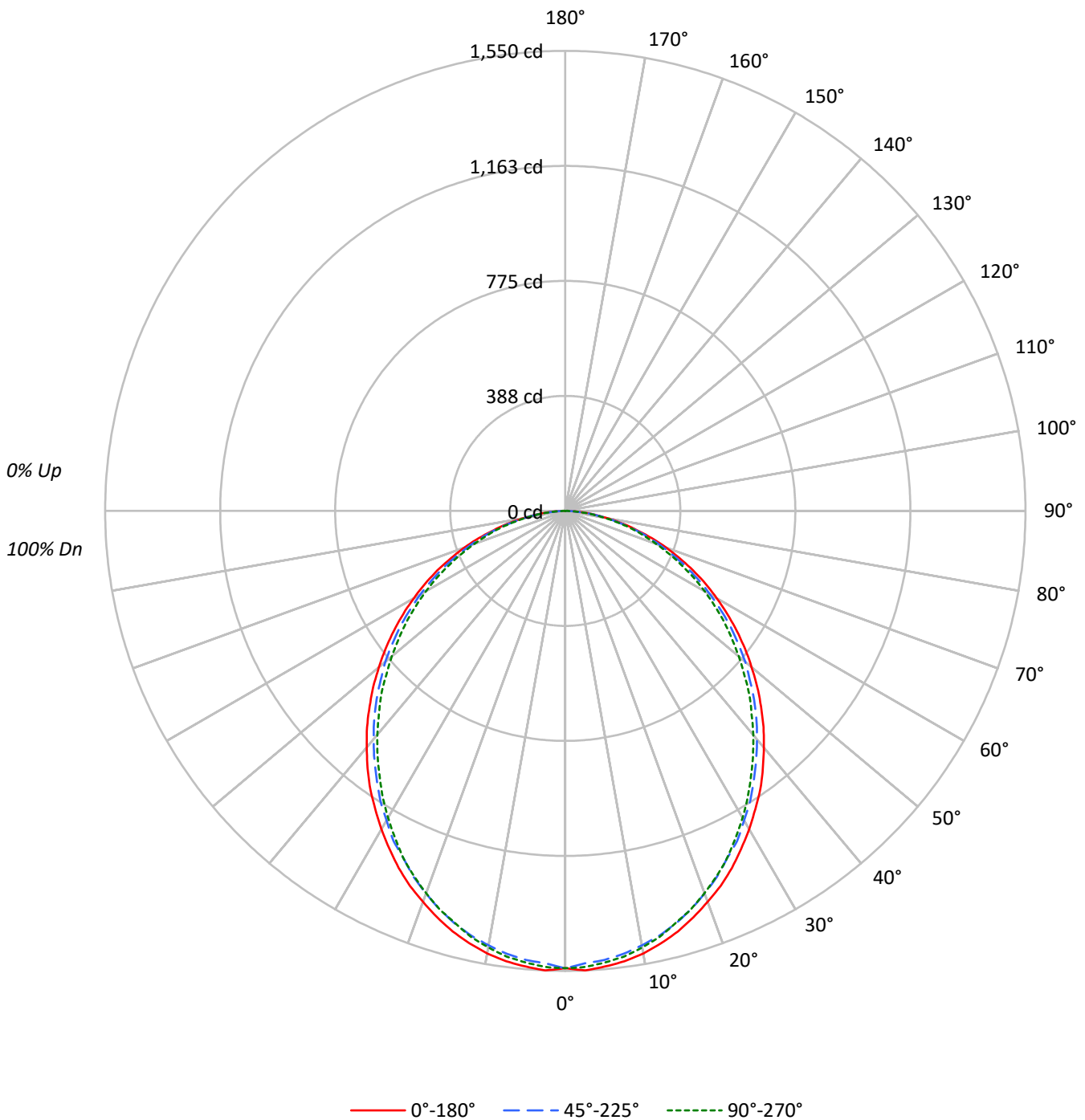
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3920.4 lumens
Efficiency: N/A
Efficacy: 78.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.3' x L: 1.99' x H: 0')
CIE Type: Direct

Input Watts (W): 49.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9789
Total Harmonic Distortion (THDi): 0.074
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930101
CATALOG NUMBER: DFN2DS-HX2F0-050DS927-FLL

Luminous Intensity Polar Plot





TEST NUMBER: P930101

CATALOG NUMBER: DFN2DS-HX2F0-050DS927-FLL

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°	3630	3630	3630
5°	3644	3592	3613
10°	3623	3556	3573
15°	3578	3509	3506
20°	3514	3440	3437
25°	3451	3355	3355
30°	3370	3277	3249
35°	3294	3184	3137
40°	3199	3090	3031
45°	3106	2997	2923
50°	3003	2900	2797
55°	2898	2788	2684
60°	2778	2653	2556
65°	2652	2519	2404
70°	2490	2357	2246
75°	2265	2171	2118
80°	2012	1950	1849
85°	1641	1563	1403

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3106 cd/sqm



TEST NUMBER: P930101
 CATALOG NUMBER: DFN2DS-HX2F0-050DS927-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.0	3.7
10°-20°	408.0	10.4
20°-30°	599.7	15.3
30°-40°	696.5	17.8
40°-50°	695.6	17.7
50°-60°	606.6	15.5
60°-70°	448.4	11.4
70°-80°	253.7	6.5
80°-90°	67.0	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°	1152.7	29.4
0°-40°	1849.2	47.2
0°-60°	3151.4	80.4
0°-90°	3920.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3920.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1541	1541	1541	1541	1541	
5°	1541	1535	1519	1530	1528	146
15°	1467	1458	1439	1445	1437	413
25°	1328	1316	1291	1293	1291	611
35°	1145	1131	1107	1098	1090	715
45°	932	922	899	883	877	719
55°	705	696	679	661	654	631
65°	476	467	452	439	431	470
75°	249	246	238	230	233	266
85°	61	59	58	53	52	71
90°	0	0	0	0	0	



TEST NUMBER: P930101

CATALOG NUMBER: DFN2DS-HX2F0-050DS927-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1540.8	1540.8	1540.8	1540.8	1540.8
2.5°	1549.8	1542.4	1526.1	1540.8	1538.1
5°	1540.8	1535.1	1518.7	1530.5	1527.7
7.5°	1530.5	1521.7	1505.4	1517.3	1514.3
10°	1514.3	1503.9	1486.2	1497.9	1493.6
12.5°	1492.0	1483.2	1465.4	1472.8	1469.8
15°	1466.8	1458.0	1438.7	1444.7	1437.2
17.5°	1435.7	1426.9	1407.5	1414.9	1407.5
20°	1401.6	1392.8	1372.1	1376.4	1370.6
22.5°	1367.6	1354.2	1334.9	1334.9	1331.9
25°	1327.6	1315.7	1290.6	1293.4	1290.6
27.5°	1283.0	1272.7	1253.5	1249.1	1241.7
30°	1238.7	1226.8	1204.6	1200.2	1194.3
32.5°	1191.2	1182.5	1158.7	1149.7	1143.8
35°	1145.3	1130.6	1106.8	1097.9	1090.5
37.5°	1093.4	1080.1	1056.4	1046.0	1038.6
40°	1040.2	1028.3	1004.5	991.3	985.3
42.5°	988.3	976.4	952.8	937.8	929.0
45°	932.0	921.7	899.3	883.2	877.1
47.5°	877.1	866.8	843.1	826.7	817.9
50°	819.3	812.0	791.2	770.5	763.0
52.5°	763.0	752.6	733.5	717.2	706.8
55°	705.4	696.4	678.6	660.8	653.5
57.5°	647.5	640.1	620.8	603.0	597.0
60°	589.6	583.9	563.1	546.7	542.4
62.5°	533.4	523.0	508.2	493.4	487.5
65°	475.7	466.7	451.9	438.6	431.2
67.5°	416.4	408.9	395.7	385.3	379.3
70°	361.5	355.6	342.2	331.8	326.1
72.5°	305.3	299.3	291.9	281.6	277.1
75°	248.8	246.0	238.5	229.7	232.7
77.5°	198.6	192.5	189.6	185.2	180.8
80°	148.3	146.7	143.7	139.3	136.3
82.5°	100.7	100.7	99.3	93.4	93.4
85°	60.7	59.2	57.8	53.3	51.9
87.5°	26.7	23.8	20.8	16.3	14.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P930101
 CATALOG NUMBER: DFN2DS-HX2F0-050DS927-FLL

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	16.13	17.69	18.00	15.32	16.93	15.68	17.24	17.56
	3H	17.51	18.97	17.89	19.29	19.65	17.02	18.48	17.40	18.80	19.16
	4H	18.16	19.53	18.56	19.88	20.25	17.66	19.03	18.06	19.38	19.76
	6H	18.63	19.90	19.04	20.26	20.65	18.13	19.40	18.54	19.76	20.15
	8H	18.77	19.98	19.20	20.37	20.77	18.27	19.48	18.69	19.87	20.27
	12H	18.86	20.02	19.29	20.40	20.83	18.35	19.51	18.78	19.89	20.32
4H	2H	16.32	17.69	16.72	18.04	18.42	15.97	17.34	16.37	17.69	18.06
	3H	18.30	19.44	18.71	19.84	20.24	17.89	19.04	18.30	19.43	19.83
	4H	19.07	20.11	19.51	20.52	20.96	18.65	19.69	19.08	20.10	20.54
	6H	19.67	20.58	20.13	21.02	21.47	19.24	20.14	19.69	20.58	21.04
	8H	19.86	20.71	20.32	21.15	21.61	19.42	20.27	19.88	20.71	21.18
	12H	19.99	20.75	20.47	21.23	21.70	19.54	20.30	20.02	20.78	21.25
8H	4H	19.35	20.19	19.81	20.64	21.10	18.97	19.82	19.43	20.26	20.73
	6H	20.06	20.77	20.56	21.25	21.73	19.68	20.38	20.17	20.87	21.35
	8H	20.32	20.95	20.83	21.46	21.94	19.93	20.56	20.44	21.07	21.55
	12H	20.52	21.08	21.03	21.57	22.13	20.11	20.67	20.62	21.16	21.72
12H	4H	19.37	20.13	19.85	20.61	21.08	19.01	19.77	19.49	20.24	20.71
	6H	20.11	20.74	20.62	21.25	21.73	19.74	20.37	20.25	20.88	21.36
	8H	20.42	20.98	20.93	21.47	22.03	20.04	20.60	20.55	21.09	21.65