

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: P930173

Luminaire Tested: DFN2DS-HX3F0-050DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930173
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-HX3F0-050DS927-FLL
Description: 3 foot, Hexagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

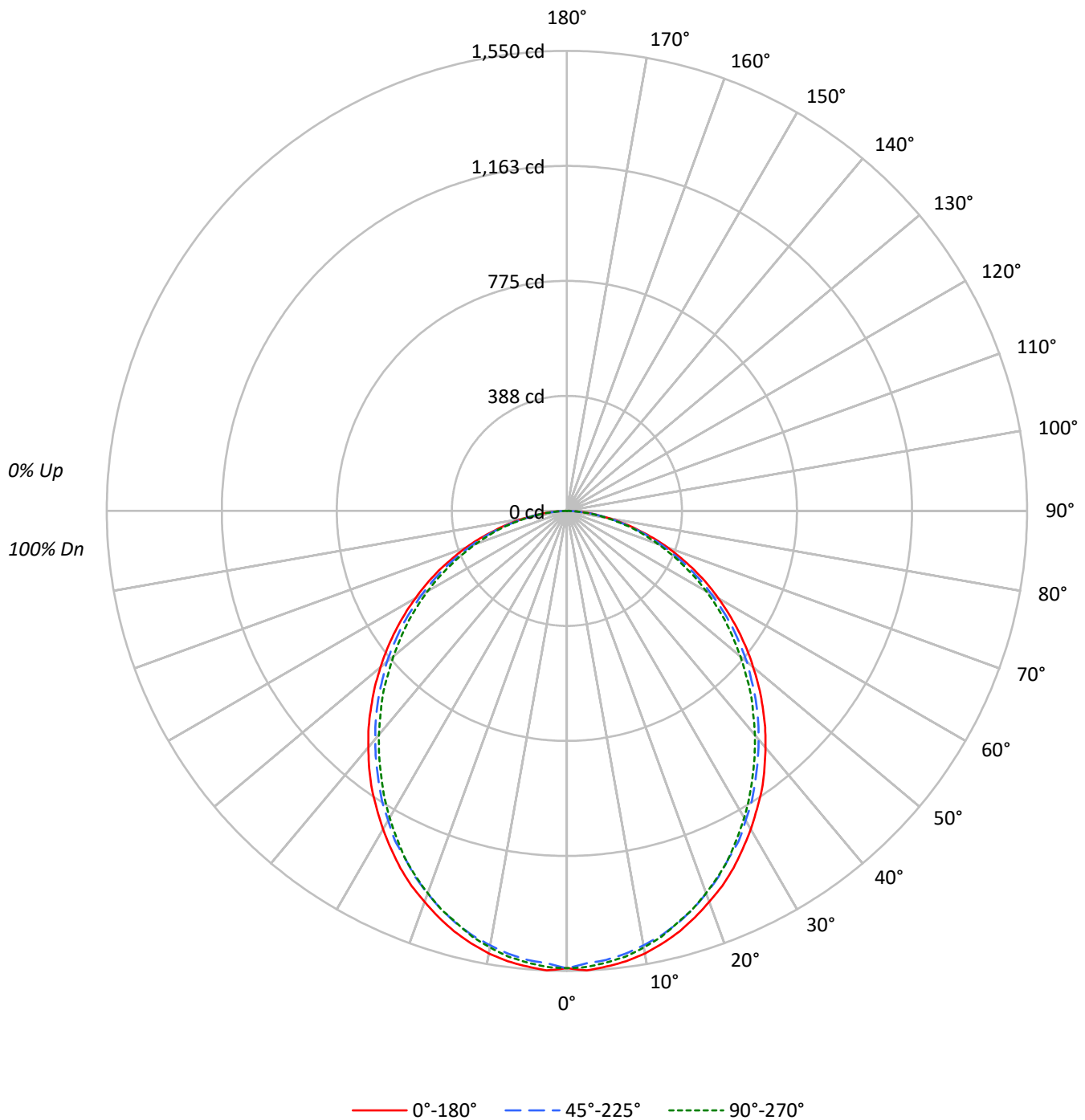
Lumens per Lamp: N/A
Luminaire Lumens: 3920.4 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.28' x L: 2.84' x H: 0')
CIE Type: Direct

Input Watts (W): 49.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9951
Total Harmonic Distortion (THDi): 0.07
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930173

CATALOG NUMBER: DFN2DS-HX3F0-050DS927-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P930173

CATALOG NUMBER: DFN2DS-HX3F0-050DS927-FLL

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1785	1785	1785
5°	1792	1766	1776
10°	1781	1748	1757
15°	1759	1725	1724
20°	1728	1691	1690
25°	1697	1650	1650
30°	1657	1611	1597
35°	1620	1565	1542
40°	1573	1519	1490
45°	1527	1473	1437
50°	1476	1426	1375
55°	1425	1370	1320
60°	1366	1305	1257
65°	1304	1239	1182
70°	1224	1159	1104
75°	1114	1067	1041
80°	989	959	909
85°	807	768	690

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1527 cd/sqm

TEST NUMBER: P930173

CATALOG NUMBER: DFN2DS-HX3F0-050DS927-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: P930173

CATALOG NUMBER: DFN2DS-HX3F0-050DS927-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: P930173

CATALOG NUMBER: DFN2DS-HX3F0-050DS927-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	13.30	14.91	13.66	15.22	15.53	12.85	14.46	13.22	14.78	15.09
	3H	15.05	16.50	15.42	16.83	17.19	14.55	16.01	14.93	16.34	16.70
	4H	15.69	17.06	16.09	17.41	17.78	15.20	16.57	15.60	16.91	17.29
	6H	16.16	17.43	16.57	17.79	18.19	15.66	16.93	16.07	17.29	17.68
	8H	16.30	17.51	16.73	17.90	18.30	15.80	17.01	16.23	17.40	17.80
	12H	16.39	17.55	16.82	17.94	18.36	15.88	17.04	16.31	17.42	17.85
4H	2H	13.86	15.22	14.25	15.57	15.95	13.50	14.87	13.90	15.22	15.60
	3H	15.83	16.98	16.24	17.37	17.77	15.42	16.57	15.83	16.97	17.37
	4H	16.61	17.64	17.04	18.06	18.49	16.18	17.22	16.61	17.63	18.07
	6H	17.20	18.11	17.66	18.55	19.01	16.77	17.68	17.23	18.12	18.57
	8H	17.39	18.24	17.85	18.68	19.15	16.96	17.80	17.42	18.24	18.71
	12H	17.53	18.29	18.01	18.76	19.23	17.07	17.83	17.55	18.31	18.78
8H	4H	16.88	17.73	17.34	18.17	18.64	16.51	17.35	16.97	17.80	18.26
	6H	17.60	18.30	18.09	18.79	19.26	17.21	17.92	17.71	18.41	18.88
	8H	17.85	18.48	18.36	18.99	19.48	17.46	18.09	17.97	18.60	19.09
	12H	18.05	18.61	18.56	19.10	19.66	17.64	18.20	18.15	18.69	19.25
12H	4H	16.91	17.67	17.39	18.14	18.61	16.54	17.30	17.02	17.78	18.25
	6H	17.64	18.27	18.15	18.78	19.27	17.27	17.90	17.78	18.41	18.90
	8H	17.95	18.51	18.46	19.00	19.56	17.58	18.13	18.08	18.63	19.19