

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: P930074

Luminaire Tested: DFN2DS-HX2F0-030DS950-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930074
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-HX2F0-030DS950-RLL
Description: 2 foot, Hexagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

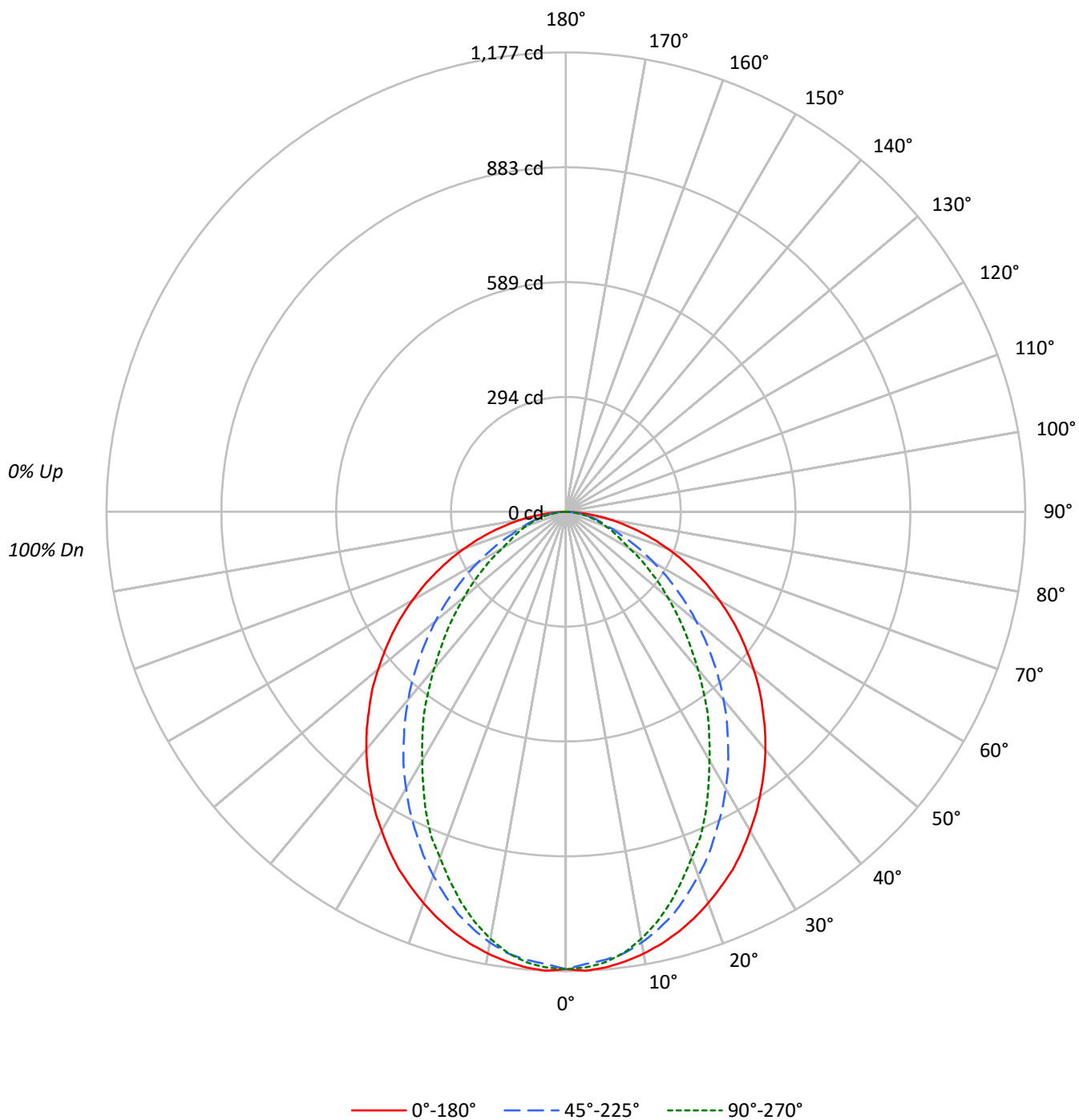
Lumens per Lamp: N/A
Luminaire Lumens: 2409.7 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.3' x L: 1.99' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
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: P930074

CATALOG NUMBER: DFN2DS-HX2F0-030DS950-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P930074

CATALOG NUMBER: DFN2DS-HX2F0-030DS950-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°	2761	2761	2761
5°	2771	2726	2741
10°	2750	2682	2659
15°	2718	2602	2527
20°	2675	2488	2363
25°	2630	2360	2205
30°	2568	2227	2002
35°	2507	2083	1824
40°	2446	1934	1618
45°	2374	1767	1431
50°	2301	1597	1248
55°	2226	1415	1072
60°	2138	1224	890
65°	2039	1029	810
70°	1921	847	745
75°	1775	773	696
80°	1569	689	634
85°	1230	543	543

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2374 cd/sqm

TEST NUMBER: P930074

CATALOG NUMBER: DFN2DS-HX2F0-030DS950-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.8	4.6
10°-20°	301.5	12.5
20°-30°	423.2	17.6
30°-40°	461.4	19.1
40°-50°	424.0	17.6
50°-60°	333.0	13.8
60°-70°	216.8	9.0
70°-80°	111.6	4.6
80°-90°	28.5	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°	834.5	34.6
0°-40°	1295.9	53.8
0°-60°	2052.9	85.2
0°-90°	2409.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2409.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1172	1172	1172	1172	1172	
5°	1172	1166	1153	1162	1159	111
15°	1114	1103	1067	1047	1036	314
25°	1012	978	908	864	848	465
35°	872	818	724	657	634	546
45°	713	642	530	455	429	550
55°	542	459	344	281	261	484
65°	366	280	184	148	145	363
75°	195	121	85	77	76	206
85°	46	23	20	20	20	55
90°	0	0	0	0	0	

TEST NUMBER: P930074

CATALOG NUMBER: DFN2DS-HX2F0-030DS950-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1171.7	1171.7	1171.7	1171.7	1171.7
2.5°	1177.0	1171.7	1160.0	1170.7	1168.6
5°	1171.7	1166.4	1152.6	1162.2	1158.9
7.5°	1162.2	1155.8	1141.0	1145.2	1139.9
10°	1149.4	1142.0	1120.9	1117.6	1111.3
12.5°	1133.5	1124.0	1095.3	1089.0	1077.3
15°	1114.4	1102.7	1066.7	1046.6	1036.0
17.5°	1092.1	1075.2	1030.6	1007.4	990.4
20°	1066.7	1045.5	992.4	966.1	942.6
22.5°	1039.2	1014.7	953.2	917.2	901.3
25°	1011.6	977.6	907.7	864.2	848.2
27.5°	978.7	942.6	865.2	815.4	791.0
30°	943.8	903.4	818.6	764.6	735.9
32.5°	909.8	861.0	774.1	710.5	683.9
35°	871.7	817.5	724.2	657.4	634.1
37.5°	834.5	776.1	677.6	604.3	578.0
40°	795.3	731.7	628.8	553.5	526.0
42.5°	755.0	687.2	580.0	501.5	475.1
45°	712.6	641.5	530.2	454.8	429.4
47.5°	672.3	597.1	482.5	407.1	383.9
50°	627.8	552.4	435.8	362.6	340.4
52.5°	584.2	504.7	391.3	321.3	301.2
55°	541.8	459.1	344.5	281.0	260.9
57.5°	498.4	413.5	303.3	243.9	226.9
60°	453.8	369.0	259.8	205.7	188.8
62.5°	410.4	325.6	222.6	171.8	163.4
65°	365.8	279.9	184.5	148.5	145.2
67.5°	323.5	237.5	148.5	130.4	127.2
70°	278.9	196.2	122.9	112.4	108.1
72.5°	236.4	157.9	102.8	94.4	92.2
75°	195.0	120.9	84.9	77.4	76.4
77.5°	153.8	85.8	66.8	62.6	60.4
80°	115.6	61.5	50.8	46.7	46.7
82.5°	80.5	41.4	35.0	32.9	32.9
85°	45.5	23.2	20.1	20.1	20.1
87.5°	17.0	8.4	8.4	7.5	7.5
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930074

CATALOG NUMBER: DFN2DS-HX2F0-030DS950-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	14.76	16.28	15.13	16.60	16.91	10.72	12.24	11.09	12.56	12.87
	3H	16.53	17.89	16.91	18.22	18.58	11.99	13.35	12.37	13.68	14.04
	4H	17.19	18.47	17.59	18.82	19.20	12.49	13.77	12.89	14.12	14.50
	6H	17.68	18.87	18.10	19.23	19.62	12.87	14.05	13.28	14.42	14.81
	8H	17.85	18.97	18.27	19.36	19.77	13.00	14.12	13.42	14.51	14.91
	12H	17.95	19.03	18.38	19.41	19.84	13.08	14.16	13.51	14.54	14.97
4H	2H	14.87	16.15	15.27	16.50	16.87	11.42	12.70	11.82	13.05	13.43
	3H	16.80	17.86	17.21	18.26	18.66	12.86	13.92	13.27	14.32	14.73
	4H	17.55	18.51	17.98	18.92	19.36	13.46	14.42	13.89	14.83	15.27
	6H	18.14	18.97	18.60	19.42	19.88	13.95	14.78	14.41	15.22	15.68
	8H	18.36	19.13	18.82	19.58	20.04	14.11	14.89	14.58	15.33	15.80
	12H	18.51	19.20	18.99	19.68	20.15	14.23	14.92	14.71	15.40	15.87
8H	4H	17.57	18.35	18.04	18.79	19.26	13.82	14.59	14.28	15.04	15.50
	6H	18.21	18.85	18.71	19.34	19.82	14.40	15.04	14.90	15.54	16.01
	8H	18.46	19.04	18.98	19.55	20.04	14.62	15.20	15.14	15.71	16.20
	12H	18.66	19.17	19.17	19.67	20.23	14.80	15.31	15.31	15.80	16.37
12H	4H	17.56	18.25	18.04	18.73	19.20	13.86	14.55	14.34	15.03	15.50
	6H	18.19	18.77	18.71	19.28	19.77	14.47	15.04	14.98	15.55	16.04
	8H	18.48	18.99	18.99	19.48	20.04	14.74	15.25	15.25	15.74	16.31