

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: P930372

Luminaire Tested: DFN2DS-HX4F0-100DS927-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930372
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-HX4F0-100DS927-RLL
Description: 4 foot, Hexagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

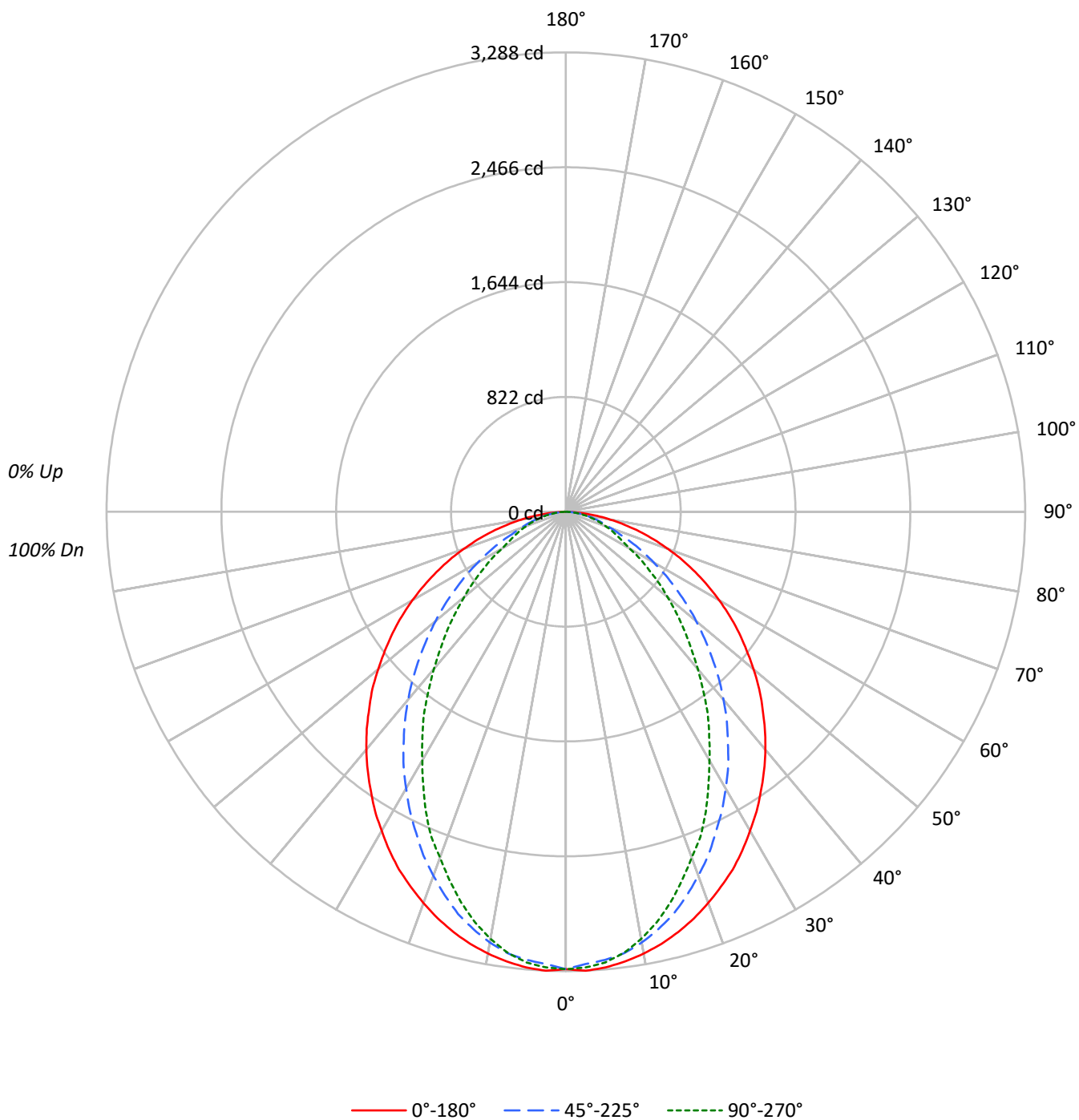
Lumens per Lamp: N/A
Luminaire Lumens: 6732.0 lumens
Efficiency: N/A
Efficacy: 64.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 4.09' x L: 3.54' x H: 0')
CIE Type: Direct

Input Watts (W): 104.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.946
Total Harmonic Distortion (THDi): 0.132
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930372

CATALOG NUMBER: DFN2DS-HX4F0-100DS927-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P930372

CATALOG NUMBER: DFN2DS-HX4F0-100DS927-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°	2434	2434	2434
5°	2443	2403	2417
10°	2424	2364	2344
15°	2397	2294	2228
20°	2358	2194	2084
25°	2319	2080	1944
30°	2264	1963	1765
35°	2210	1837	1608
40°	2157	1705	1426
45°	2093	1558	1261
50°	2029	1408	1100
55°	1962	1248	945
60°	1885	1079	784
65°	1798	907	714
70°	1694	747	657
75°	1566	681	613
80°	1382	608	558
85°	1086	479	479

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2093 cd/sqm

TEST NUMBER: P930372

CATALOG NUMBER: DFN2DS-HX4F0-100DS927-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	306.8	4.6
10°-20°	842.2	12.5
20°-30°	1182.4	17.6
30°-40°	1288.9	19.1
40°-50°	1184.6	17.6
50°-60°	930.3	13.8
60°-70°	605.5	9.0
70°-80°	311.7	4.6
80°-90°	79.6	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°	2331.3	34.6
0°-40°	3620.2	53.8
0°-60°	5735.1	85.2
0°-90°	6732.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6732.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3273	3273	3273	3273	3273	
5°	3273	3258	3220	3247	3238	310
15°	3113	3081	2980	2924	2894	877
25°	2826	2731	2536	2414	2370	1300
35°	2435	2284	2023	1837	1771	1524
45°	1991	1792	1481	1271	1200	1537
55°	1514	1283	963	785	729	1353
65°	1022	782	515	415	406	1013
75°	545	338	237	216	213	576
85°	127	65	56	56	56	153
90°	0	0	0	0	0	

TEST NUMBER: P930372

CATALOG NUMBER: DFN2DS-HX4F0-100DS927-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3273.3	3273.3	3273.3	3273.3	3273.3
2.5°	3288.1	3273.3	3240.6	3270.5	3264.5
5°	3273.3	3258.5	3219.9	3246.6	3237.8
7.5°	3246.6	3229.0	3187.5	3199.1	3184.4
10°	3211.1	3190.3	3131.3	3122.1	3104.6
12.5°	3166.8	3140.0	3059.9	3042.3	3009.6
15°	3113.4	3080.6	2980.1	2923.8	2894.3
17.5°	3051.1	3003.7	2879.2	2814.1	2766.7
20°	2980.1	2920.7	2772.6	2698.8	2633.4
22.5°	2903.1	2834.9	2662.9	2562.4	2518.1
25°	2826.1	2731.2	2535.7	2414.3	2369.7
27.5°	2734.3	2633.4	2417.2	2278.0	2209.8
30°	2636.6	2523.7	2286.7	2135.9	2055.8
32.5°	2541.7	2405.2	2162.6	1984.8	1910.5
35°	2435.1	2284.0	2023.4	1836.7	1771.3
37.5°	2331.4	2168.3	1893.0	1688.4	1614.5
40°	2221.7	2044.2	1756.6	1546.3	1469.3
42.5°	2109.2	1919.6	1620.5	1401.1	1327.2
45°	1990.7	1792.1	1481.3	1270.7	1199.6
47.5°	1878.2	1668.0	1348.0	1137.4	1072.4
50°	1753.7	1543.4	1217.5	1013.0	951.0
52.5°	1632.1	1409.9	1093.1	897.6	841.3
55°	1513.6	1282.6	962.7	785.1	728.8
57.5°	1392.3	1155.3	847.4	681.4	633.9
60°	1267.8	1030.9	725.7	574.8	527.4
62.5°	1146.5	909.5	622.0	480.0	456.4
65°	1022.1	781.9	515.4	414.8	405.7
67.5°	903.6	663.5	414.8	364.2	355.4
70°	779.1	548.1	343.5	313.9	302.1
72.5°	660.6	441.2	287.3	263.7	257.7
75°	545.0	337.6	237.0	216.2	213.4
77.5°	429.7	239.8	186.7	174.7	168.8
80°	322.7	171.9	142.1	130.4	130.4
82.5°	225.0	115.6	97.7	91.8	91.8
85°	127.3	65.0	56.2	56.2	56.2
87.5°	47.4	23.6	23.6	20.8	20.8
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930372

CATALOG NUMBER: DFN2DS-HX4F0-100DS927-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	14.33	15.85	14.69	16.16	16.47	10.29	11.81	10.65	12.12	12.44
	3H	16.09	17.46	16.47	17.78	18.15	11.55	12.92	11.93	13.24	13.61
	4H	16.76	18.04	17.16	18.39	18.76	12.05	13.33	12.45	13.68	14.06
	6H	17.25	18.43	17.66	18.80	19.19	12.43	13.62	12.85	13.98	14.37
	8H	17.41	18.54	17.84	18.93	19.33	12.56	13.68	12.98	14.07	14.48
	12H	17.51	18.59	17.94	18.97	19.40	12.64	13.72	13.07	14.10	14.53
4H	2H	14.43	15.71	14.83	16.06	16.44	10.98	12.26	11.38	12.61	12.99
	3H	16.36	17.43	16.77	17.83	18.23	12.42	13.49	12.83	13.89	14.29
	4H	17.11	18.07	17.54	18.48	18.92	13.02	13.98	13.46	14.40	14.83
	6H	17.70	18.54	18.16	18.98	19.44	13.51	14.34	13.97	14.79	15.25
	8H	17.92	18.70	18.38	19.14	19.61	13.67	14.45	14.14	14.90	15.36
	12H	18.07	18.77	18.55	19.24	19.72	13.79	14.49	14.27	14.96	15.43
8H	4H	17.14	17.91	17.60	18.36	18.82	13.38	14.15	13.84	14.60	15.07
	6H	17.77	18.42	18.27	18.91	19.38	13.96	14.61	14.46	15.10	15.57
	8H	18.02	18.60	18.54	19.11	19.60	14.19	14.76	14.70	15.27	15.76
	12H	18.23	18.74	18.74	19.23	19.79	14.36	14.87	14.87	15.37	15.93
12H	4H	17.12	17.82	17.60	18.29	18.76	13.42	14.12	13.90	14.59	15.06
	6H	17.75	18.33	18.27	18.84	19.33	14.03	14.60	14.54	15.11	15.60
	8H	18.04	18.55	18.55	19.04	19.61	14.30	14.81	14.81	15.30	15.87

END OF REPORT

FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE

7 of 7