

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: P930245

Luminaire Tested: DFN2DS-HX3F0-090DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930245
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-HX3F0-090DS927-FLL
Description: 3 foot, Hexagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

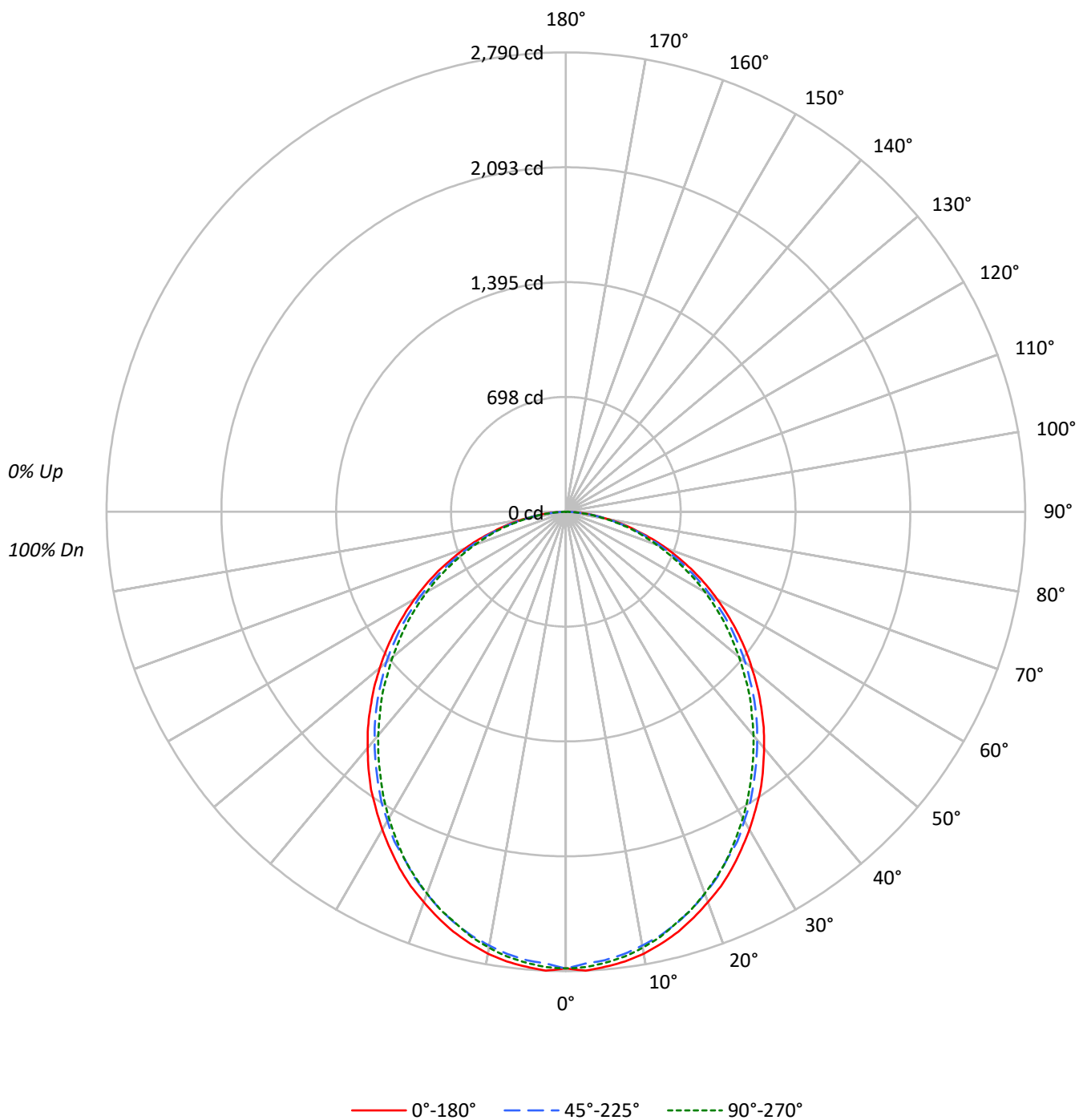
Lumens per Lamp: N/A
Luminaire Lumens: 7056.8 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.28' x L: 2.84' x H: 0')
CIE Type: Direct

Input Watts (W): 97.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9968
Total Harmonic Distortion (THDi): 0.064
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930245

CATALOG NUMBER: DFN2DS-HX3F0-090DS927-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P930245

CATALOG NUMBER: DFN2DS-HX3F0-090DS927-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°	3213	3213	3213
5°	3225	3179	3197
10°	3206	3147	3162
15°	3166	3105	3102
20°	3110	3044	3041
25°	3054	2969	2969
30°	2982	2900	2875
35°	2915	2817	2776
40°	2831	2734	2682
45°	2748	2652	2586
50°	2658	2566	2475
55°	2564	2467	2376
60°	2459	2348	2262
65°	2347	2230	2127
70°	2204	2086	1988
75°	2005	1921	1874
80°	1780	1725	1637
85°	1451	1384	1241

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2748 cd/sqm

TEST NUMBER: P930245

CATALOG NUMBER: DFN2DS-HX3F0-090DS927-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.0	3.7
10°-20°	734.5	10.4
20°-30°	1079.4	15.3
30°-40°	1253.7	17.8
40°-50°	1252.1	17.7
50°-60°	1091.8	15.5
60°-70°	807.1	11.4
70°-80°	456.6	6.5
80°-90°	120.5	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°	2074.9	29.4
0°-40°	3328.6	47.2
0°-60°	5672.5	80.4
0°-90°	7056.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7056.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2774	2774	2774	2774	2774	
5°	2774	2763	2734	2755	2750	263
15°	2640	2624	2590	2600	2587	744
25°	2390	2368	2323	2328	2323	1100
35°	2062	2035	1992	1976	1963	1287
45°	1678	1659	1619	1590	1579	1295
55°	1270	1254	1222	1190	1176	1135
65°	856	840	814	790	776	847
75°	448	443	429	413	419	478
85°	109	107	104	96	93	128
90°	0	0	0	0	0	

TEST NUMBER: P930245

CATALOG NUMBER: DFN2DS-HX3F0-090DS927-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2773.5	2773.5	2773.5	2773.5	2773.5
2.5°	2789.7	2776.4	2747.0	2773.5	2768.4
5°	2773.5	2763.1	2733.7	2754.9	2749.7
7.5°	2754.9	2739.1	2709.6	2731.1	2725.7
10°	2725.7	2707.1	2675.1	2696.3	2688.4
12.5°	2685.5	2669.7	2637.8	2651.0	2645.7
15°	2640.3	2624.5	2589.6	2600.4	2587.1
17.5°	2584.2	2568.4	2533.6	2546.9	2533.6
20°	2522.8	2507.0	2469.6	2477.5	2467.1
22.5°	2461.7	2437.7	2402.8	2402.8	2397.5
25°	2389.5	2368.3	2323.1	2328.2	2323.1
27.5°	2309.5	2290.8	2256.3	2248.4	2235.1
30°	2229.7	2208.2	2168.3	2160.3	2149.6
32.5°	2144.3	2128.4	2085.7	2069.6	2058.8
35°	2061.7	2035.0	1992.3	1976.2	1962.9
37.5°	1968.3	1944.2	1901.4	1882.8	1869.5
40°	1872.3	1850.8	1808.1	1784.3	1773.6
42.5°	1778.9	1757.4	1715.0	1688.1	1672.3
45°	1677.6	1659.0	1618.8	1589.6	1578.9
47.5°	1578.9	1560.2	1517.5	1488.1	1472.2
50°	1474.8	1461.5	1424.1	1386.8	1373.5
52.5°	1373.5	1354.8	1320.3	1290.9	1272.2
55°	1269.7	1253.5	1221.5	1189.6	1176.3
57.5°	1165.5	1152.2	1117.4	1085.4	1074.7
60°	1061.4	1050.9	1013.5	984.1	976.2
62.5°	960.1	941.4	914.8	888.2	877.5
65°	856.2	840.1	813.5	789.5	776.2
67.5°	749.5	736.0	712.2	693.6	682.8
70°	650.8	640.0	616.0	597.3	586.9
72.5°	549.5	538.7	525.4	506.8	498.9
75°	448.0	442.8	429.3	413.4	418.8
77.5°	357.4	346.7	341.3	333.4	325.4
80°	266.8	264.0	258.6	250.7	245.4
82.5°	181.4	181.4	178.8	168.1	168.1
85°	109.2	106.7	104.1	95.9	93.4
87.5°	48.1	42.7	37.4	29.5	26.6
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930245

CATALOG NUMBER: DFN2DS-HX3F0-090DS927-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	15.34	16.95	15.70	17.26	17.58	14.89	16.50	15.26	16.82	17.13
	3H	17.09	18.54	17.46	18.87	19.23	16.60	18.05	16.97	18.38	18.74
	4H	17.73	19.10	18.13	19.45	19.83	17.24	18.61	17.64	18.96	19.33
	6H	18.20	19.47	18.61	19.84	20.23	17.70	18.97	18.11	19.34	19.73
	8H	18.35	19.56	18.77	19.95	20.35	17.84	19.05	18.27	19.44	19.84
	12H	18.44	19.60	18.87	19.98	20.41	17.92	19.08	18.35	19.47	19.90
4H	2H	15.90	17.27	16.30	17.61	17.99	15.55	16.91	15.94	17.26	17.64
	3H	17.87	19.02	18.28	19.42	19.82	17.47	18.61	17.88	19.01	19.41
	4H	18.65	19.69	19.08	20.10	20.54	18.23	19.26	18.66	19.68	20.11
	6H	19.25	20.15	19.70	20.59	21.05	18.81	19.72	19.27	20.16	20.62
	8H	19.44	20.28	19.90	20.72	21.19	19.00	19.84	19.46	20.29	20.75
	12H	19.57	20.33	20.05	20.80	21.27	19.12	19.88	19.60	20.35	20.82
8H	4H	18.92	19.77	19.38	20.21	20.68	18.55	19.40	19.01	19.84	20.30
	6H	19.64	20.34	20.13	20.83	21.30	19.26	19.96	19.75	20.45	20.92
	8H	19.90	20.53	20.41	21.03	21.52	19.51	20.14	20.01	20.64	21.13
	12H	20.10	20.65	20.60	21.14	21.71	19.68	20.24	20.19	20.73	21.29
12H	4H	18.95	19.71	19.43	20.18	20.65	18.58	19.34	19.06	19.82	20.29
	6H	19.68	20.31	20.19	20.82	21.31	19.31	19.95	19.82	20.45	20.94
	8H	20.00	20.55	20.50	21.04	21.61	19.62	20.18	20.13	20.67	21.23