

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: P930066

Luminaire Tested: DFN2DS-HX2F0-030DS927-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930066
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-HX2F0-030DS927-RLL
Description: 2 foot, Hexagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

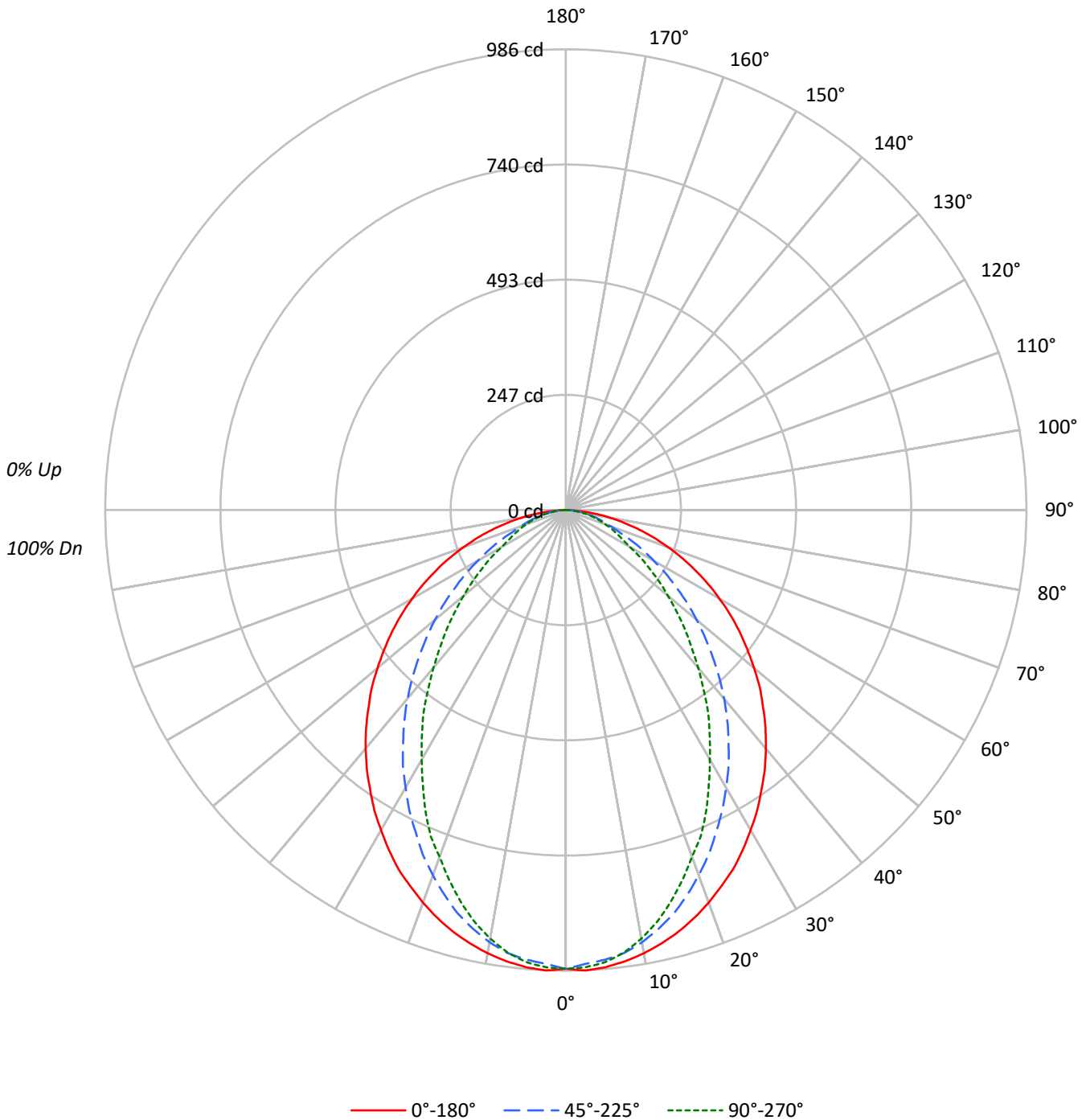
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2019.6 lumens
Efficiency: N/A
Efficacy: 73.2 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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	88	88	88	86
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	76	76	76	74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	66	66	66	64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	57	57	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	51	51	51	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	45	45	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	41	41	41	39
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	37	37	37	35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	34	34	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	31	31	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2314	2314	2314
5°	2323	2285	2297
10°	2305	2248	2228
15°	2278	2181	2118
20°	2242	2086	1981
25°	2204	1978	1848
30°	2152	1866	1678
35°	2101	1746	1528
40°	2050	1621	1356
45°	1990	1481	1199
50°	1928	1339	1046
55°	1865	1186	898
60°	1792	1026	745
65°	1709	862	678
70°	1610	710	624
75°	1488	647	583
80°	1315	578	531
85°	1033	457	457

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1990 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.0	4.6
10°-20°	252.7	12.5
20°-30°	354.7	17.6
30°-40°	386.7	19.1
40°-50°	355.4	17.6
50°-60°	279.1	13.8
60°-70°	181.6	9.0
70°-80°	93.5	4.6
80°-90°	23.9	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°	699.4	34.6
0°-40°	1086.1	53.8
0°-60°	1720.5	85.2
0°-90°	2019.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2019.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	982	982	982	982	982	
5°	982	978	966	974	971	93
15°	934	924	894	877	868	263
25°	848	819	761	724	711	390
35°	730	685	607	551	531	457
45°	597	538	444	381	360	461
55°	454	385	289	236	219	406
65°	307	235	155	124	122	304
75°	164	101	71	65	64	173
85°	38	20	17	17	17	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	982.0	982.0	982.0	982.0	982.0
2.5°	986.4	982.0	972.2	981.1	979.4
5°	982.0	977.6	966.0	974.0	971.3
7.5°	974.0	968.7	956.3	959.7	955.3
10°	963.3	957.1	939.4	936.6	931.4
12.5°	950.0	942.0	918.0	912.7	902.9
15°	934.0	924.2	894.0	877.1	868.3
17.5°	915.3	901.1	863.8	844.3	830.0
20°	894.0	876.2	831.8	809.7	790.0
22.5°	871.0	850.4	798.9	768.7	755.4
25°	847.8	819.3	760.7	724.3	710.9
27.5°	820.3	790.0	725.2	683.4	662.9
30°	791.0	757.2	686.0	640.8	616.7
32.5°	762.5	721.6	648.8	595.4	573.2
35°	730.5	685.2	607.0	551.0	531.4
37.5°	699.4	650.5	567.9	506.5	484.4
40°	666.5	613.2	527.0	463.9	440.8
42.5°	632.7	575.9	486.1	420.3	398.1
45°	597.2	537.6	444.4	381.2	359.9
47.5°	563.4	500.4	404.4	341.2	321.7
50°	526.1	463.0	365.3	303.9	285.3
52.5°	489.6	423.0	328.0	269.3	252.4
55°	454.1	384.8	288.8	235.5	218.7
57.5°	417.7	346.6	254.2	204.4	190.2
60°	380.3	309.3	217.7	172.4	158.2
62.5°	344.0	272.8	186.6	144.0	136.9
65°	306.6	234.6	154.6	124.4	121.7
67.5°	271.1	199.0	124.4	109.3	106.6
70°	233.7	164.4	103.0	94.2	90.6
72.5°	198.2	132.3	86.2	79.1	77.3
75°	163.5	101.3	71.1	64.9	64.0
77.5°	128.9	71.9	56.0	52.4	50.6
80°	96.9	51.6	42.6	39.1	39.1
82.5°	67.5	34.7	29.3	27.6	27.6
85°	38.2	19.5	16.9	16.9	16.9
87.5°	14.3	7.0	7.0	6.3	6.3
90°	0.0	0.0	0.0	0.0	0.0



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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	14.15	15.67	14.51	15.98	16.30	10.11	11.63	10.47	11.94	12.26
	3H	15.91	17.28	16.29	17.61	17.97	11.37	12.74	11.75	13.07	13.43
	4H	16.58	17.86	16.98	18.21	18.59	11.88	13.16	12.28	13.51	13.88
	6H	17.07	18.25	17.48	18.62	19.01	12.26	13.44	12.67	13.81	14.20
	8H	17.24	18.36	17.66	18.75	19.15	12.38	13.51	12.81	13.90	14.30
	12H	17.34	18.42	17.77	18.80	19.23	12.46	13.54	12.89	13.92	14.35
4H	2H	14.25	15.53	14.65	15.88	16.26	10.80	12.09	11.20	12.43	12.81
	3H	16.19	17.25	16.60	17.65	18.05	12.25	13.31	12.66	13.71	14.11
	4H	16.94	17.89	17.37	18.31	18.75	12.85	13.80	13.28	14.22	14.66
	6H	17.53	18.36	17.99	18.80	19.26	13.34	14.17	13.79	14.61	15.07
	8H	17.74	18.52	18.21	18.96	19.43	13.50	14.28	13.96	14.72	15.19
	12H	17.90	18.59	18.38	19.07	19.54	13.62	14.31	14.10	14.79	15.26
8H	4H	16.96	17.74	17.42	18.18	18.65	13.20	13.98	13.66	14.42	14.89
	6H	17.60	18.24	18.09	18.73	19.21	13.79	14.43	14.28	14.92	15.40
	8H	17.85	18.42	18.36	18.93	19.42	14.01	14.59	14.52	15.10	15.58
	12H	18.05	18.56	18.56	19.05	19.62	14.19	14.70	14.70	15.19	15.76
12H	4H	16.94	17.64	17.43	18.12	18.59	13.24	13.94	13.73	14.42	14.89
	6H	17.58	18.16	18.09	18.67	19.15	13.85	14.43	14.36	14.94	15.43
	8H	17.86	18.37	18.37	18.86	19.43	14.12	14.63	14.63	15.13	15.69