

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: P930465

Luminaire Tested: DFN2DS-PN2F0-040DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930465
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-PN2F0-040DS935-FLL
Description: 2 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

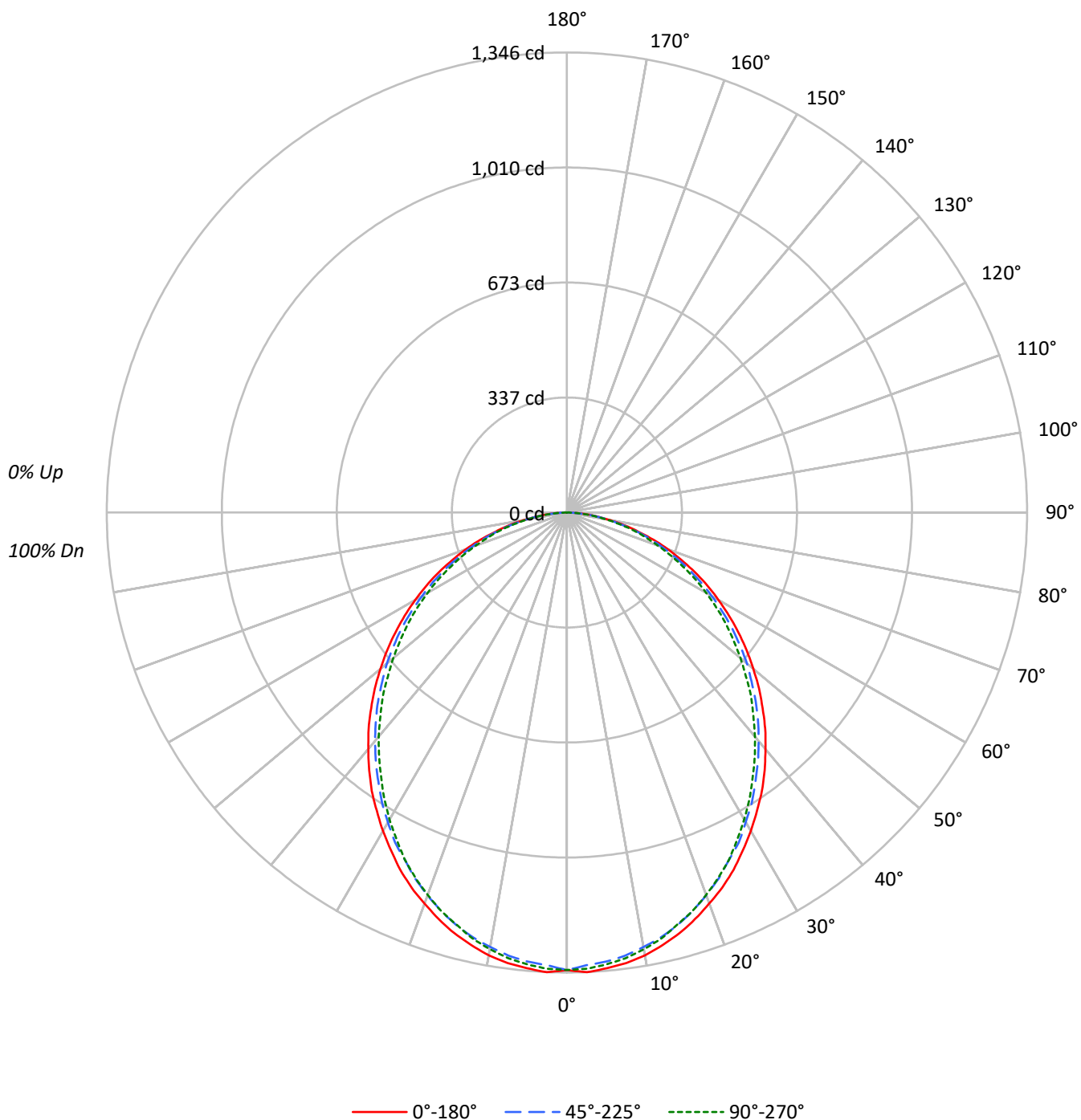
Lumens per Lamp: N/A
Luminaire Lumens: 3405.6 lumens
Efficiency: N/A
Efficacy: 80.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.29' x L: 2.17' x H: 0')
CIE Type: Direct

Input Watts (W): 42.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9613
Total Harmonic Distortion (THDi): 0.083
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
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°	2899	2899	2899
5°	2910	2868	2885
10°	2893	2839	2853
15°	2857	2802	2799
20°	2806	2747	2744
25°	2756	2679	2679
30°	2691	2617	2594
35°	2631	2542	2505
40°	2555	2467	2420
45°	2480	2393	2334
50°	2398	2316	2233
55°	2314	2226	2144
60°	2219	2119	2041
65°	2118	2012	1920
70°	1989	1883	1793
75°	1809	1734	1691
80°	1605	1557	1477
85°	1310	1248	1121

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2480 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.0	3.7
10°-20°	354.5	10.4
20°-30°	520.9	15.3
30°-40°	605.0	17.8
40°-50°	604.3	17.7
50°-60°	526.9	15.5
60°-70°	389.5	11.4
70°-80°	220.4	6.5
80°-90°	58.2	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°	1001.4	29.4
0°-40°	1606.4	47.2
0°-60°	2737.6	80.4
0°-90°	3405.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3405.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1338	1338	1338	1338	1338	
5°	1338	1333	1319	1330	1327	127
15°	1274	1266	1250	1255	1248	359
25°	1153	1143	1121	1124	1121	531
35°	995	982	962	954	947	621
45°	810	801	781	767	762	625
55°	613	605	590	574	568	548
65°	413	405	393	381	375	409
75°	216	214	207	200	202	231
85°	53	52	50	46	45	62
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1338.5	1338.5	1338.5	1338.5	1338.5
2.5°	1346.3	1339.9	1325.7	1338.5	1336.1
5°	1338.5	1333.4	1319.2	1329.5	1327.1
7.5°	1329.5	1321.8	1307.6	1318.0	1315.5
10°	1315.5	1306.4	1291.0	1301.3	1297.4
12.5°	1296.0	1288.4	1273.0	1279.4	1276.8
15°	1274.2	1266.5	1249.8	1254.9	1248.5
17.5°	1247.2	1239.5	1222.7	1229.1	1222.7
20°	1217.5	1209.8	1191.9	1195.7	1190.7
22.5°	1188.0	1176.4	1159.6	1159.6	1157.0
25°	1153.2	1142.9	1121.1	1123.6	1121.1
27.5°	1114.6	1105.5	1088.9	1085.1	1078.7
30°	1076.0	1065.7	1046.4	1042.6	1037.4
32.5°	1034.8	1027.2	1006.5	998.8	993.6
35°	994.9	982.1	961.5	953.7	947.3
37.5°	949.9	938.3	917.6	908.7	902.2
40°	903.6	893.2	872.6	861.1	856.0
42.5°	858.5	848.1	827.7	814.7	807.0
45°	809.6	800.7	781.2	767.2	762.0
47.5°	762.0	752.9	732.4	718.2	710.5
50°	711.7	705.3	687.3	669.3	662.8
52.5°	662.8	653.9	637.2	623.0	614.0
55°	612.8	604.9	589.5	574.0	567.7
57.5°	562.4	556.1	539.2	523.8	518.7
60°	512.2	507.1	489.2	475.0	471.1
62.5°	463.4	454.3	441.5	428.6	423.5
65°	413.2	405.4	392.6	381.0	374.6
67.5°	361.7	355.2	343.7	334.7	329.6
70°	314.1	308.9	297.3	288.3	283.2
72.5°	265.2	260.0	253.6	244.6	240.7
75°	216.2	213.7	207.2	199.5	202.1
77.5°	172.4	167.3	164.7	160.8	157.0
80°	128.7	127.4	124.8	121.0	118.4
82.5°	87.5	87.5	86.3	81.1	81.1
85°	52.7	51.5	50.2	46.3	45.1
87.5°	23.2	20.6	18.1	14.2	12.8
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	14.98	16.59	15.35	16.91	17.22	14.54	16.15	14.90	16.46	16.78
	3H	16.73	18.19	17.11	18.51	18.87	16.24	17.69	16.62	18.02	18.38
	4H	17.38	18.75	17.78	19.09	19.47	16.88	18.25	17.28	18.60	18.98
	6H	17.85	19.11	18.26	19.48	19.87	17.34	18.61	17.76	18.98	19.37
	8H	17.99	19.20	18.41	19.59	19.99	17.49	18.70	17.91	19.09	19.49
	12H	18.08	19.24	18.51	19.62	20.05	17.57	18.73	18.00	19.11	19.54
4H	2H	15.54	16.91	15.94	17.26	17.63	15.19	16.56	15.59	16.90	17.28
	3H	17.52	18.66	17.93	19.06	19.46	17.11	18.26	17.52	18.65	19.05
	4H	18.29	19.33	18.72	19.74	20.18	17.87	18.90	18.30	19.32	19.75
	6H	18.89	19.79	19.34	20.23	20.69	18.46	19.36	18.91	19.80	20.26
	8H	19.08	19.92	19.54	20.37	20.83	18.64	19.49	19.10	19.93	20.39
	12H	19.21	19.97	19.69	20.45	20.92	18.76	19.52	19.24	19.99	20.46
8H	4H	18.57	19.41	19.03	19.86	20.32	18.19	19.04	18.65	19.48	19.95
	6H	19.28	19.98	19.77	20.47	20.95	18.90	19.60	19.39	20.09	20.57
	8H	19.54	20.17	20.05	20.68	21.16	19.15	19.78	19.66	20.29	20.77
	12H	19.74	20.30	20.25	20.79	21.35	19.33	19.88	19.83	20.37	20.94
12H	4H	18.59	19.35	19.07	19.83	20.30	18.23	18.99	18.71	19.46	19.93
	6H	19.33	19.96	19.84	20.46	20.95	18.96	19.59	19.47	20.10	20.58
	8H	19.64	20.20	20.15	20.69	21.25	19.26	19.82	19.77	20.31	20.87