

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: P930132

Luminaire Tested: DFN2DS-HX3F0-030DS835-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930132
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-HX3F0-030DS835-RLL
Description: 3 foot, Hexagon Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

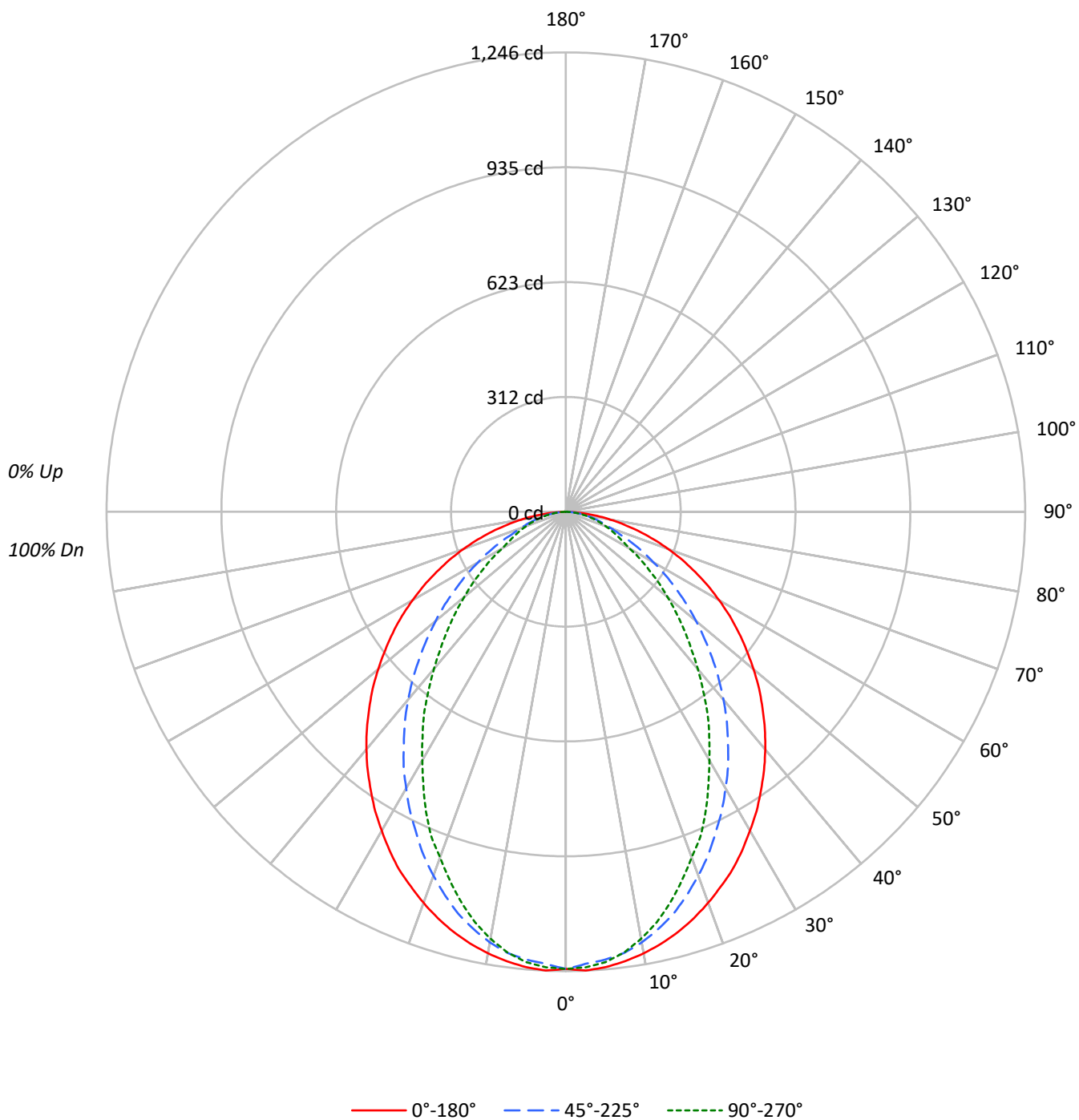
Lumens per Lamp: N/A
Luminaire Lumens: 2550.0 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 3.28' x L: 2.84' x H: 0')
CIE Type: Direct

Input Watts (W): 28.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.983
Total Harmonic Distortion (THDi): 0.073
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P930132

CATALOG NUMBER: DFN2DS-HX3F0-030DS835-RLL

Luminous Intensity Polar Plot



TEST NUMBER: P930132

CATALOG NUMBER: DFN2DS-HX3F0-030DS835-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°	1436	1436	1436
5°	1442	1418	1426
10°	1431	1395	1383
15°	1414	1354	1315
20°	1391	1295	1230
25°	1368	1228	1147
30°	1336	1159	1042
35°	1304	1084	949
40°	1273	1006	842
45°	1235	919	744
50°	1197	831	649
55°	1158	736	558
60°	1112	637	463
65°	1061	535	421
70°	999	441	387
75°	924	402	362
80°	816	359	330
85°	641	283	283

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1235 cd/sqm

TEST NUMBER: P930132

CATALOG NUMBER: DFN2DS-HX3F0-030DS835-RLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.2	4.6
10°-20°	319.0	12.5
20°-30°	447.9	17.6
30°-40°	488.2	19.1
40°-50°	448.7	17.6
50°-60°	352.4	13.8
60°-70°	229.4	9.0
70°-80°	118.1	4.6
80°-90°	30.1	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°	883.1	34.6
0°-40°	1371.3	53.8
0°-60°	2172.4	85.2
0°-90°	2550.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2550.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1240	1240	1240	1240	1240	
5°	1240	1234	1220	1230	1226	118
15°	1179	1167	1129	1108	1096	332
25°	1070	1034	960	914	898	492
35°	922	865	766	696	671	577
45°	754	679	561	481	454	582
55°	573	486	365	297	276	512
65°	387	296	195	157	154	384
75°	206	128	90	82	81	218
85°	48	25	21	21	21	58
90°	0	0	0	0	0	

TEST NUMBER: P930132

CATALOG NUMBER: DFN2DS-HX3F0-030DS835-RLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1239.9	1239.9	1239.9	1239.9	1239.9
2.5°	1245.5	1239.9	1227.5	1238.8	1236.6
5°	1239.9	1234.3	1219.7	1229.8	1226.4
7.5°	1229.8	1223.1	1207.4	1211.8	1206.2
10°	1216.3	1208.5	1186.1	1182.6	1176.0
12.5°	1199.5	1189.4	1159.1	1152.4	1140.0
15°	1179.3	1166.9	1128.8	1107.5	1096.3
17.5°	1155.7	1137.8	1090.6	1066.0	1048.0
20°	1128.8	1106.3	1050.2	1022.3	997.5
22.5°	1099.7	1073.8	1008.7	970.6	953.8
25°	1070.5	1034.5	960.5	914.5	897.6
27.5°	1035.7	997.5	915.6	862.9	837.0
30°	998.7	956.0	866.2	809.1	778.7
32.5°	962.7	911.1	819.2	751.8	723.7
35°	922.4	865.1	766.4	695.7	671.0
37.5°	883.1	821.3	717.0	639.5	611.6
40°	841.6	774.3	665.4	585.7	556.6
42.5°	798.9	727.2	613.8	530.7	502.7
45°	754.1	678.8	561.1	481.3	454.4
47.5°	711.4	631.8	510.6	430.8	406.2
50°	664.3	584.6	461.2	383.7	360.2
52.5°	618.2	534.1	414.1	340.0	318.7
55°	573.3	485.8	364.6	297.4	276.1
57.5°	527.4	437.6	321.0	258.1	240.1
60°	480.2	390.5	274.9	217.7	199.8
62.5°	434.3	344.5	235.6	181.8	172.9
65°	387.1	296.2	195.2	157.1	153.7
67.5°	342.3	251.3	157.1	138.0	134.6
70°	295.1	207.6	130.1	118.9	114.4
72.5°	250.2	167.1	108.8	99.9	97.6
75°	206.4	127.9	89.8	81.9	80.8
77.5°	162.7	90.8	70.7	66.2	63.9
80°	122.3	65.1	53.8	49.4	49.4
82.5°	85.2	43.8	37.0	34.8	34.8
85°	48.2	24.6	21.3	21.3	21.3
87.5°	18.0	8.9	8.9	7.9	7.9
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P930132

CATALOG NUMBER: DFN2DS-HX3F0-030DS835-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	12.49	14.01	12.86	14.33	14.64	8.45	9.97	8.82	10.29	10.60
	3H	14.26	15.62	14.64	15.95	16.31	9.72	11.08	10.10	11.41	11.77
	4H	14.92	16.20	15.32	16.55	16.93	10.22	11.50	10.62	11.85	12.23
	6H	15.41	16.60	15.82	16.96	17.35	10.60	11.78	11.01	12.15	12.54
	8H	15.58	16.70	16.00	17.09	17.50	10.73	11.85	11.15	12.24	12.64
	12H	15.68	16.76	16.11	17.14	17.57	10.81	11.88	11.24	12.27	12.70
4H	2H	12.60	13.88	13.00	14.23	14.60	9.15	10.43	9.55	10.78	11.16
	3H	14.53	15.59	14.94	15.99	16.39	10.59	11.65	11.00	12.05	12.45
	4H	15.28	16.24	15.71	16.65	17.09	11.19	12.15	11.62	12.56	13.00
	6H	15.87	16.70	16.33	17.15	17.60	11.68	12.51	12.14	12.95	13.41
	8H	16.08	16.86	16.55	17.31	17.77	11.84	12.62	12.30	13.06	13.53
	12H	16.24	16.93	16.72	17.41	17.88	11.96	12.65	12.44	13.13	13.60
8H	4H	15.30	16.08	15.77	16.52	16.99	11.54	12.32	12.01	12.77	13.23
	6H	15.94	16.58	16.44	17.07	17.55	12.13	12.77	12.63	13.26	13.74
	8H	16.19	16.77	16.70	17.28	17.77	12.35	12.93	12.87	13.44	13.93
	12H	16.39	16.90	16.90	17.40	17.96	12.53	13.04	13.04	13.53	14.10
12H	4H	15.29	15.98	15.77	16.46	16.93	11.59	12.28	12.07	12.76	13.23
	6H	15.92	16.50	16.44	17.01	17.50	12.19	12.77	12.71	13.28	13.77
	8H	16.21	16.72	16.72	17.21	17.77	12.47	12.98	12.98	13.47	14.03