

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P243713

Luminaire Tested: S125DRP-H1270D840-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243713
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-56)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-H1270D840-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

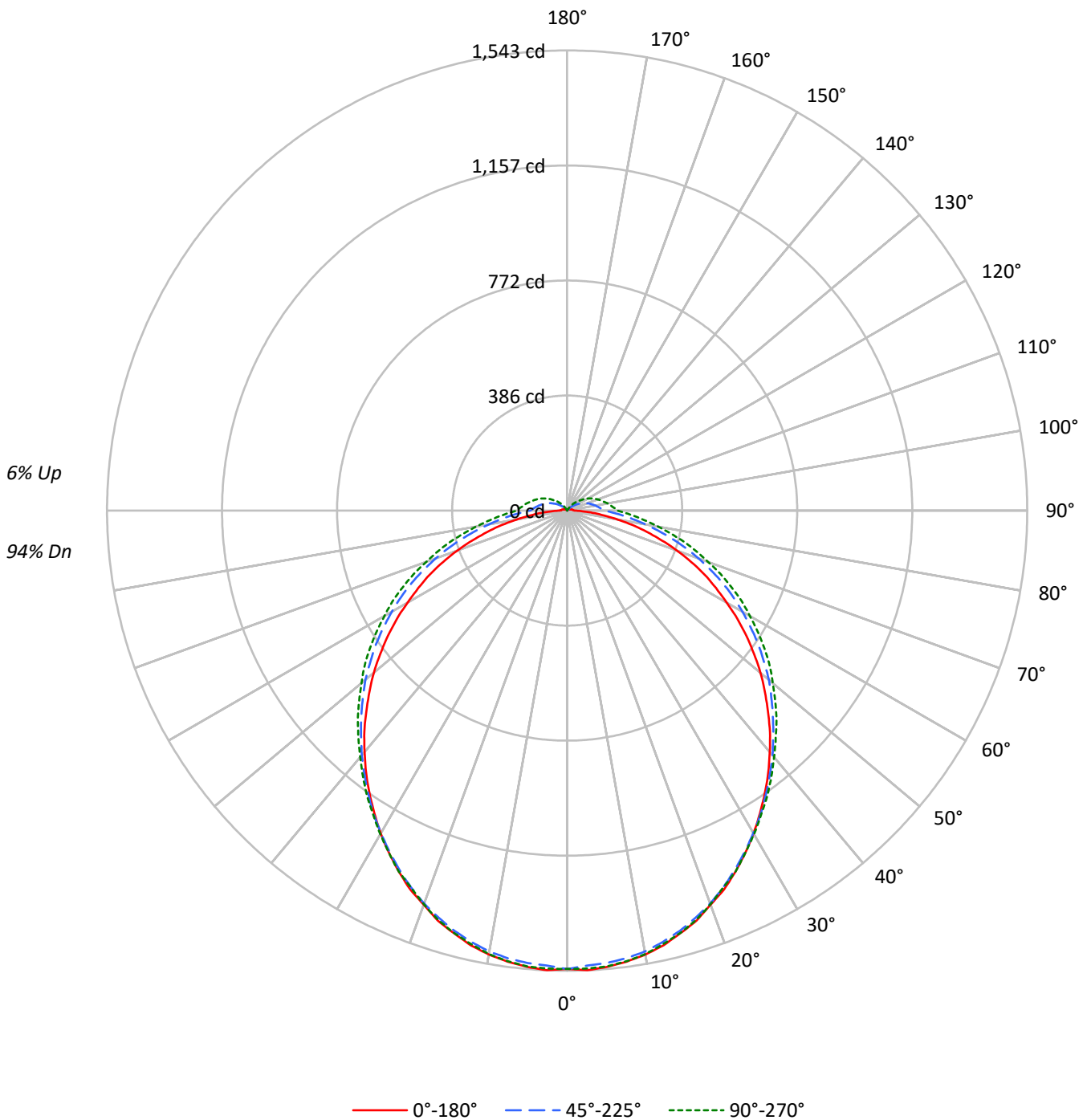
Lumens per Lamp: N/A
Luminaire Lumens: 4772.2 lumens
Efficiency: N/A
Efficacy: 126.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P243713

CATALOG NUMBER: S125DRP-H1270D840-X4F0-XX-UDD-D-W

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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10924	10924	10924
5°	10935	10709	10745
10°	10867	10528	10503
15°	10735	10277	10203
20°	10554	10000	9861
25°	10368	9678	9525
30°	10133	9351	9155
35°	9884	9032	8826
40°	9631	8723	8496
45°	9364	8413	8226
50°	9127	8156	7940
55°	8829	7840	7678
60°	8468	7497	7344
65°	8175	7135	7017
70°	7693	6691	6590
75°	7041	6166	6213
80°	6271	5600	5738
85°	5577	5238	5459

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9364 cd/sqm



TEST NUMBER: P243713

CATALOG NUMBER: S125DRP-H1270D840-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.4	3.0
10°-20°	413.2	8.7
20°-30°	615.1	12.9
30°-40°	728.7	15.3
40°-50°	754.0	15.8
50°-60°	695.4	14.6
60°-70°	562.0	11.8
70°-80°	375.5	7.9
80°-90°	193.7	4.1
90°-100°	108.6	2.3
100°-110°	80.6	1.7
110°-120°	53.6	1.1
120°-130°	30.0	0.6
130°-140°	13.5	0.3
140°-150°	2.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1173.7	24.6
0°-40°	1902.4	39.9
0°-60°	3351.8	70.2
0°-90°	4483.0	93.9
90°-120°	242.9	5.1
90°-150°	289.2	6.1
90°-180°	289.0	6.1
0°-180°	4772.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1537	1537	1537	1537	1537	
5°	1536	1534	1523	1534	1534	146
15°	1467	1472	1459	1467	1466	414
25°	1335	1341	1330	1337	1335	615
35°	1156	1165	1162	1168	1169	723
45°	952	967	976	992	993	735
55°	734	757	783	801	808	656
65°	508	538	575	601	608	501
75°	277	318	364	395	406	294
85°	85	134	186	219	230	88
90°	24	71	124	158	169	17
95°	20	60	109	142	152	16
105°	14	38	84	114	124	15
115°	10	20	58	85	95	9
125°	6	6	34	55	65	5
135°	3	3	13	33	38	2
145°	1	0	0	8	13	1
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1537.0	1537.0	1537.0	1537.0	1537.0
2.5°	1542.7	1538.4	1527.0	1538.4	1537.0
5°	1535.6	1534.1	1522.8	1534.1	1534.1
7.5°	1525.6	1524.2	1514.2	1525.6	1524.2
10°	1511.4	1511.4	1501.5	1510.0	1510.0
12.5°	1492.9	1492.9	1481.6	1491.5	1488.7
15°	1467.4	1471.6	1458.8	1467.4	1465.9
17.5°	1441.8	1441.8	1431.9	1439.0	1439.0
20°	1406.3	1412.0	1402.0	1409.1	1404.9
22.5°	1375.0	1377.9	1367.9	1375.0	1367.9
25°	1335.3	1340.9	1329.6	1336.7	1335.3
27.5°	1294.1	1298.3	1289.8	1298.3	1294.1
30°	1250.0	1254.3	1248.6	1254.3	1252.9
32.5°	1203.2	1211.7	1207.4	1211.7	1210.3
35°	1156.3	1164.8	1162.0	1167.6	1169.1
37.5°	1108.0	1116.5	1116.5	1123.6	1125.0
40°	1056.8	1068.2	1071.1	1081.0	1079.6
42.5°	1007.1	1018.5	1022.8	1035.5	1035.5
45°	951.7	967.4	975.9	991.5	992.9
47.5°	899.2	916.2	929.0	943.2	946.0
50°	846.6	862.2	883.5	897.8	900.6
52.5°	789.8	809.7	831.0	850.9	856.6
55°	734.4	757.1	782.7	801.2	808.3
57.5°	677.6	701.7	730.1	752.9	758.5
60°	617.9	646.3	679.0	701.7	707.4
62.5°	562.5	593.8	627.9	652.0	660.5
65°	508.5	538.4	575.3	600.9	608.0
67.5°	450.3	483.0	521.3	549.7	556.8
70°	392.1	427.6	468.8	495.8	502.9
72.5°	332.4	372.2	416.2	446.0	454.6
75°	277.0	318.2	363.6	394.9	406.3
77.5°	224.4	267.1	312.5	345.2	355.1
80°	171.9	215.9	265.6	299.7	309.7
82.5°	125.0	171.9	223.0	257.1	267.1
85°	85.2	133.5	186.1	218.8	230.1
87.5°	52.6	99.4	153.4	186.1	197.4
90°	24.1	71.0	123.6	157.7	169.0
92.5°	21.3	65.3	116.5	150.6	160.5
95°	19.9	59.7	109.4	142.0	152.0
97.5°	18.5	54.0	102.3	134.9	144.9
100°	17.0	48.3	96.6	127.8	137.8
102.5°	15.6	44.0	89.5	120.7	129.3
105°	14.2	38.4	83.8	113.6	123.6
107.5°	12.8	32.7	78.1	106.5	116.5
110°	11.4	28.4	71.0	99.4	109.4



TEST NUMBER: P243713

CATALOG NUMBER: S125DRP-H1270D840-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	9.9	24.1	65.3	92.3	102.3
115°	9.9	19.9	58.2	85.2	95.2
117.5°	8.5	15.6	51.1	78.1	88.1
120°	7.1	11.4	45.5	71.0	81.0
122.5°	7.1	8.5	39.8	63.9	73.9
125°	5.7	5.7	34.1	55.4	65.3
127.5°	5.7	4.3	28.4	49.7	56.8
130°	4.3	2.8	24.1	44.0	51.1
132.5°	4.3	2.8	18.5	38.4	45.5
135°	2.8	2.8	12.8	32.7	38.4
137.5°	2.8	1.4	8.5	25.6	32.7
140°	1.4	1.4	2.8	19.9	25.6
142.5°	1.4	1.4	1.4	14.2	19.9
145°	1.4	0.0	0.0	8.5	12.8
147.5°	1.4	0.0	0.0	2.8	7.1
150°	0.0	0.0	0.0	0.0	1.4
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	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	18.22	19.75	18.68	20.19	20.66	19.31	20.84	19.77	21.28	21.75
	3H	19.87	21.26	20.34	21.71	22.22	21.48	22.87	21.94	23.32	23.82
	4H	20.44	21.76	20.93	22.23	22.74	22.44	23.76	22.93	24.22	24.74
	6H	20.83	22.05	21.33	22.53	23.07	23.34	24.57	23.84	25.05	25.58
	8H	20.93	22.11	21.45	22.61	23.15	23.77	24.94	24.29	25.45	25.99
	12H	21.00	22.12	21.52	22.62	23.19	24.22	25.35	24.74	25.84	26.42
4H	2H	18.99	20.30	19.48	20.77	21.29	19.84	21.16	20.33	21.62	22.14
	3H	20.87	21.99	21.37	22.50	23.04	22.22	23.34	22.72	23.85	24.39
	4H	21.57	22.59	22.10	23.11	23.69	23.33	24.35	23.85	24.87	25.45
	6H	22.08	22.98	22.63	23.53	24.12	24.40	25.30	24.94	25.84	26.43
	8H	22.24	23.08	22.79	23.63	24.23	24.91	25.76	25.46	26.31	26.91
	12H	22.34	23.10	22.91	23.68	24.29	25.47	26.23	26.04	26.81	27.41
8H	4H	22.05	22.90	22.60	23.44	24.05	23.59	24.43	24.14	24.98	25.58
	6H	22.72	23.43	23.30	24.02	24.63	24.81	25.52	25.39	26.11	26.72
	8H	22.96	23.60	23.56	24.20	24.82	25.45	26.08	26.04	26.69	27.31
	12H	23.15	23.72	23.74	24.31	24.99	26.15	26.72	26.75	27.31	28.00
12H	4H	22.15	22.91	22.72	23.49	24.10	23.61	24.37	24.18	24.95	25.55
	6H	22.88	23.52	23.48	24.13	24.75	24.86	25.50	25.45	26.10	26.72
	8H	23.20	23.77	23.80	24.36	25.05	25.56	26.13	26.16	26.72	27.41