

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: P243708

Luminaire Tested: S125DRP-H1270D835-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243708
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-H1270D835-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

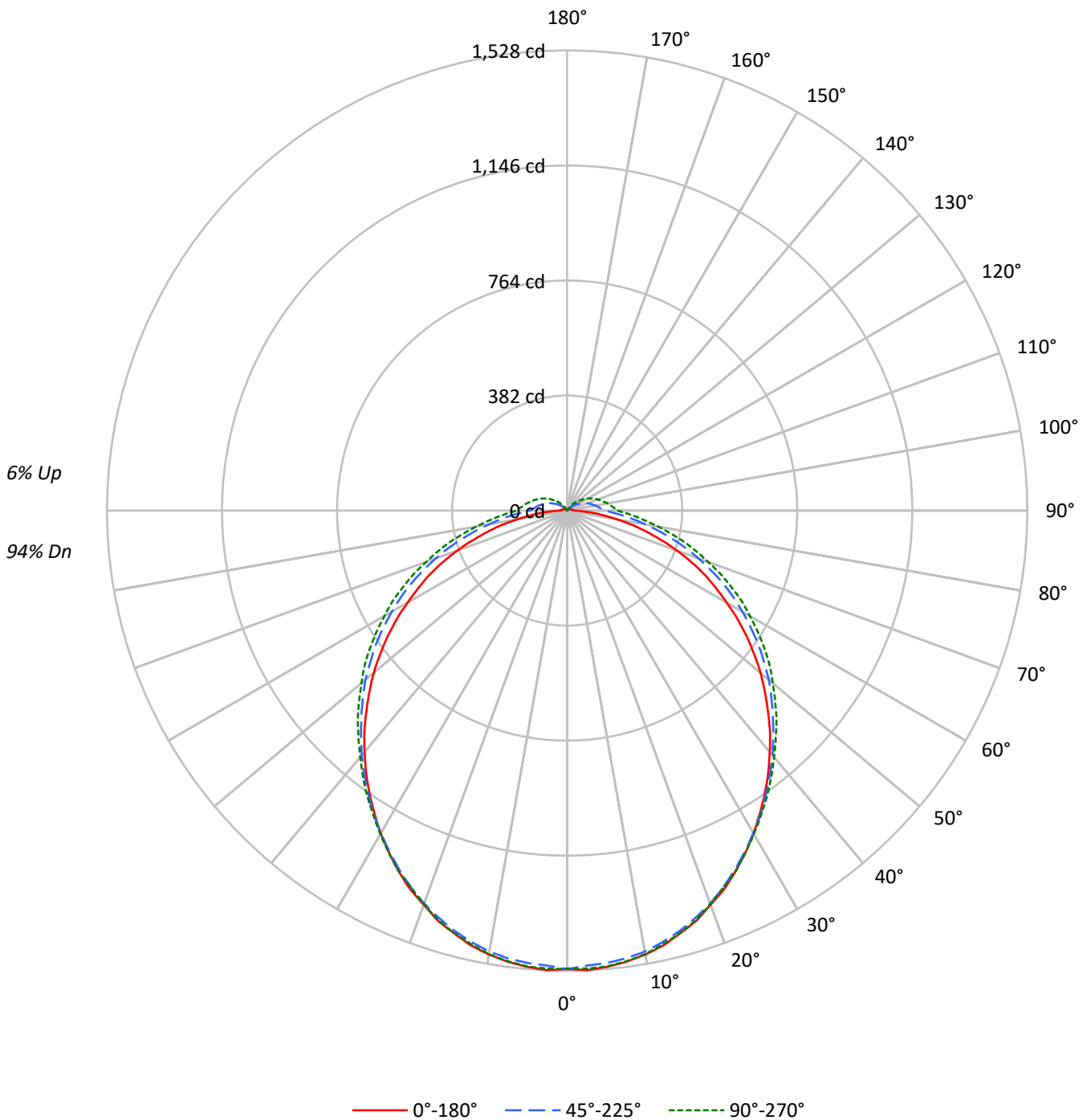
Lumens per Lamp: N/A
Luminaire Lumens: 4725.6 lumens
Efficiency: N/A
Efficacy: 125.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

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

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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	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°	10817	10817	10817
5°	10828	10604	10640
10°	10760	10425	10400
15°	10630	10177	10104
20°	10451	9902	9764
25°	10266	9583	9431
30°	10034	9260	9065
35°	9787	8944	8739
40°	9537	8637	8413
45°	9273	8330	8146
50°	9038	8076	7863
55°	8742	7763	7603
60°	8386	7424	7272
65°	8096	7066	6947
70°	7617	6625	6525
75°	6973	6106	6152
80°	6209	5545	5680
85°	5525	5188	5407

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9273 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.0	3.0
10°-20°	409.2	8.7
20°-30°	609.1	12.9
30°-40°	721.6	15.3
40°-50°	746.6	15.8
50°-60°	688.6	14.6
60°-70°	556.5	11.8
70°-80°	371.9	7.9
80°-90°	191.8	4.1
90°-100°	107.6	2.3
100°-110°	79.8	1.7
110°-120°	53.1	1.1
120°-130°	29.7	0.6
130°-140°	13.3	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°	1162.2	24.6
0°-40°	1883.8	39.9
0°-60°	3319.0	70.2
0°-90°	4439.2	93.9
90°-120°	240.6	5.1
90°-150°	286.4	6.1
90°-180°	286.0	6.1
0°-180°	4725.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1522	1522	1522	1522	1522	
5°	1521	1519	1508	1519	1519	144
15°	1453	1457	1445	1453	1452	410
25°	1322	1328	1317	1324	1322	609
35°	1145	1153	1151	1156	1158	716
45°	942	958	966	982	983	728
55°	727	750	775	793	800	650
65°	504	533	570	595	602	497
75°	274	315	360	391	402	291
85°	84	132	184	217	228	87
90°	24	70	122	156	167	17
95°	20	59	108	141	150	16
105°	14	38	83	112	122	15
115°	10	20	58	84	94	9
125°	6	6	34	55	65	5
135°	3	3	13	32	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°	1522.0	1522.0	1522.0	1522.0	1522.0
2.5°	1527.6	1523.4	1512.1	1523.4	1522.0
5°	1520.6	1519.1	1507.9	1519.1	1519.1
7.5°	1510.7	1509.3	1499.5	1510.7	1509.3
10°	1496.6	1496.6	1486.8	1495.2	1495.2
12.5°	1478.4	1478.4	1467.1	1476.9	1474.1
15°	1453.0	1457.3	1444.6	1453.0	1451.6
17.5°	1427.7	1427.7	1417.9	1424.9	1424.9
20°	1392.6	1398.2	1388.3	1395.4	1391.1
22.5°	1361.6	1364.4	1354.6	1361.6	1354.6
25°	1322.2	1327.8	1316.6	1323.6	1322.2
27.5°	1281.4	1285.6	1277.2	1285.6	1281.4
30°	1237.8	1242.0	1236.4	1242.0	1240.6
32.5°	1191.4	1199.8	1195.6	1199.8	1198.4
35°	1145.0	1153.4	1150.6	1156.2	1157.6
37.5°	1097.2	1105.6	1105.6	1112.6	1114.0
40°	1046.5	1057.8	1060.6	1070.4	1069.0
42.5°	997.3	1008.5	1012.8	1025.4	1025.4
45°	942.4	957.9	966.3	981.8	983.2
47.5°	890.4	907.3	919.9	934.0	936.8
50°	838.3	853.8	874.9	889.0	891.8
52.5°	782.1	801.8	822.9	842.6	848.2
55°	727.2	749.7	775.0	793.3	800.4
57.5°	671.0	694.9	723.0	745.5	751.1
60°	611.9	640.0	672.4	694.9	700.5
62.5°	557.0	588.0	621.7	645.6	654.1
65°	503.6	533.1	569.7	595.0	602.0
67.5°	445.9	478.3	516.2	544.4	551.4
70°	388.2	423.4	464.2	490.9	497.9
72.5°	329.1	368.5	412.1	441.7	450.1
75°	274.3	315.1	360.1	391.0	402.3
77.5°	222.2	264.4	309.5	341.8	351.7
80°	170.2	213.8	263.0	296.8	306.6
82.5°	123.8	170.2	220.8	254.6	264.4
85°	84.4	132.2	184.3	216.6	227.9
87.5°	52.0	98.5	151.9	184.3	195.5
90°	23.9	70.3	122.4	156.1	167.4
92.5°	21.1	64.7	115.3	149.1	158.9
95°	19.7	59.1	108.3	140.7	150.5
97.5°	18.3	53.5	101.3	133.6	143.5
100°	16.9	47.8	95.7	126.6	136.4
102.5°	15.5	43.6	88.6	119.6	128.0
105°	14.1	38.0	83.0	112.5	122.4
107.5°	12.7	32.4	77.4	105.5	115.3
110°	11.3	28.1	70.3	98.5	108.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	9.8	23.9	64.7	91.4	101.3
115°	9.8	19.7	57.7	84.4	94.2
117.5°	8.4	15.5	50.6	77.4	87.2
120°	7.0	11.3	45.0	70.3	80.2
122.5°	7.0	8.4	39.4	63.3	73.1
125°	5.6	5.6	33.8	54.9	64.7
127.5°	5.6	4.2	28.1	49.2	56.3
130°	4.2	2.8	23.9	43.6	50.6
132.5°	4.2	2.8	18.3	38.0	45.0
135°	2.8	2.8	12.7	32.4	38.0
137.5°	2.8	1.4	8.4	25.3	32.4
140°	1.4	1.4	2.8	19.7	25.3
142.5°	1.4	1.4	1.4	14.1	19.7
145°	1.4	0.0	0.0	8.4	12.7
147.5°	1.4	0.0	0.0	2.8	7.0
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	18.19	19.72	18.64	20.16	20.62	19.28	20.81	19.73	21.25	21.71
	3H	19.84	21.23	20.31	21.68	22.18	21.44	22.83	21.91	23.28	23.79
	4H	20.41	21.73	20.90	22.19	22.71	22.40	23.72	22.89	24.19	24.71
	6H	20.79	22.02	21.30	22.50	23.03	23.31	24.53	23.81	25.01	25.55
	8H	20.90	22.07	21.41	22.58	23.12	23.74	24.91	24.25	25.41	25.95
	12H	20.96	22.09	21.48	22.58	23.16	24.19	25.31	24.71	25.81	26.38
4H	2H	18.95	20.27	19.44	20.74	21.26	19.80	21.12	20.29	21.59	22.11
	3H	20.83	21.95	21.34	22.46	23.00	22.19	23.30	22.69	23.81	24.36
	4H	21.54	22.56	22.06	23.08	23.65	23.30	24.32	23.82	24.84	25.41
	6H	22.05	22.95	22.59	23.50	24.09	24.36	25.26	24.91	25.81	26.40
	8H	22.20	23.05	22.75	23.59	24.20	24.88	25.72	25.43	26.27	26.87
	12H	22.31	23.07	22.88	23.65	24.25	25.43	26.19	26.00	26.77	27.38
8H	4H	22.02	22.86	22.57	23.41	24.01	23.55	24.40	24.10	24.94	25.55
	6H	22.69	23.40	23.27	23.99	24.60	24.78	25.49	25.36	26.08	26.68
	8H	22.93	23.57	23.52	24.17	24.79	25.41	26.05	26.01	26.65	27.27
	12H	23.11	23.68	23.71	24.27	24.96	26.12	26.69	26.71	27.28	27.97
12H	4H	22.12	22.88	22.69	23.46	24.06	23.57	24.33	24.14	24.91	25.52
	6H	22.85	23.49	23.44	24.09	24.71	24.82	25.46	25.42	26.07	26.69
	8H	23.17	23.74	23.76	24.33	25.01	25.53	26.09	26.12	26.69	27.37