

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: P242848

Luminaire Tested: S125DRP-S1270D835-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242848
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S1270D835-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

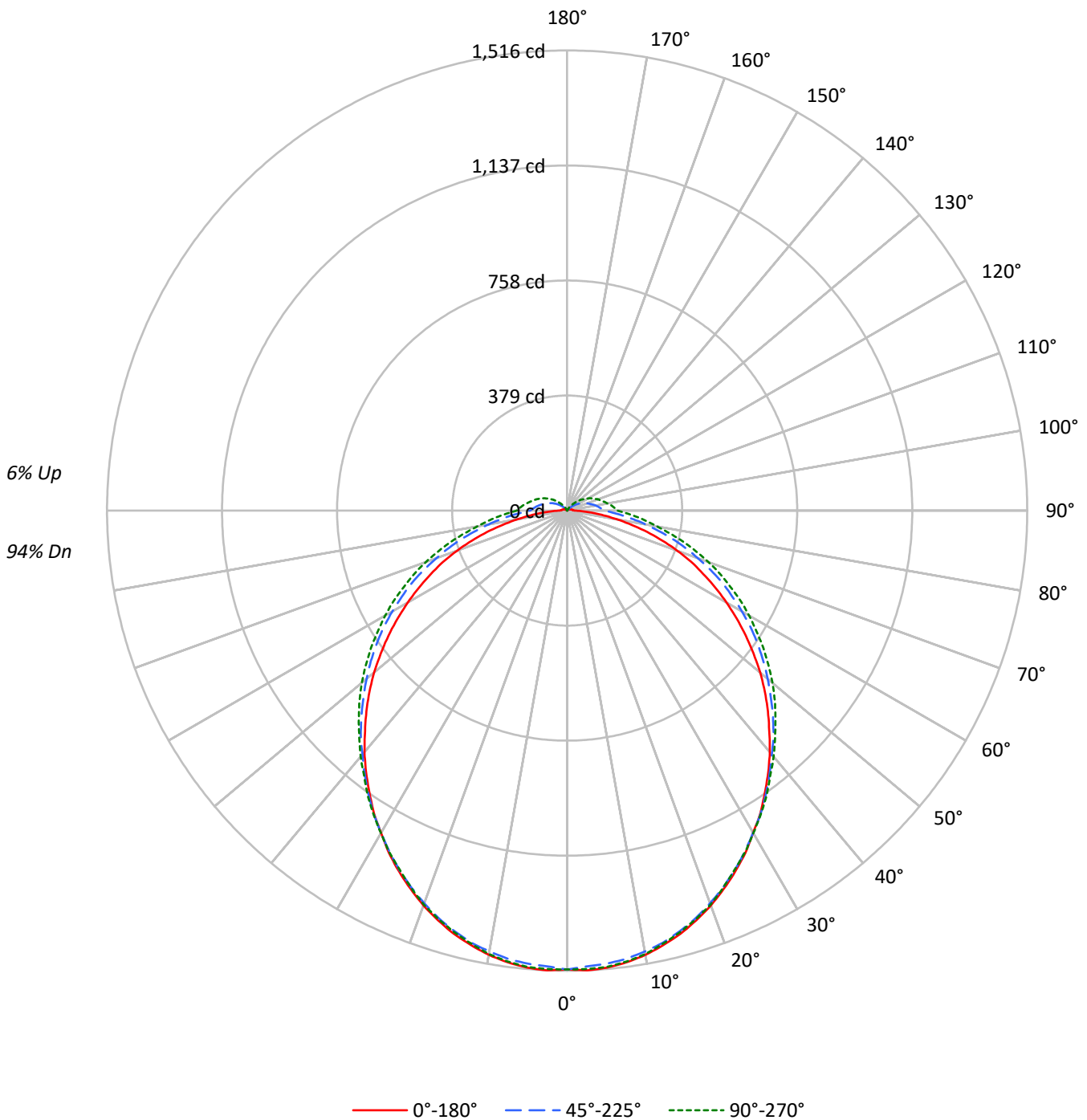
Lumens per Lamp: N/A
Luminaire Lumens: 4683.1 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (Ain): 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°	10744	10744	10744
5°	10765	10537	10567
10°	10688	10340	10319
15°	10561	10107	10006
20°	10389	9820	9695
25°	10184	9515	9313
30°	9936	9180	8968
35°	9704	8871	8649
40°	9468	8545	8328
45°	9202	8266	8043
50°	8948	7963	7788
55°	8641	7675	7490
60°	8308	7348	7185
65°	7958	7004	6841
70°	7560	6537	6487
75°	6932	6083	6051
80°	6110	5530	5575
85°	5335	5131	5381

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9202 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.1	3.1
10°-20°	406.1	8.7
20°-30°	603.9	12.9
30°-40°	715.2	15.3
40°-50°	739.4	15.8
50°-60°	681.1	14.5
60°-70°	550.6	11.8
70°-80°	368.4	7.9
80°-90°	190.4	4.1
90°-100°	107.3	2.3
100°-110°	79.1	1.7
110°-120°	52.9	1.1
120°-130°	30.0	0.6
130°-140°	13.1	0.3
140°-150°	2.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1153.0	24.6
0°-40°	1868.2	39.9
0°-60°	3288.6	70.2
0°-90°	4398.1	93.9
90°-120°	239.3	5.1
90°-150°	285.0	6.1
90°-180°	285.0	6.1
0°-180°	4683.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1512	1512	1512	1512	1512	
5°	1512	1509	1498	1510	1509	143
15°	1444	1445	1435	1444	1438	407
25°	1312	1316	1307	1313	1306	604
35°	1135	1146	1141	1146	1146	711
45°	935	952	959	969	971	722
55°	719	742	766	782	788	642
65°	495	529	565	587	593	491
75°	273	311	359	388	396	289
85°	82	130	182	215	227	85
90°	24	71	122	156	166	16
95°	19	58	108	141	151	15
105°	13	37	82	111	122	14
115°	9	19	58	84	93	9
125°	6	4	34	58	65	5
135°	3	2	12	31	38	2
145°	2	0	0	7	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°	1511.7	1511.7	1511.7	1511.7	1511.7
2.5°	1516.2	1513.2	1502.8	1513.2	1511.7
5°	1511.7	1508.8	1498.4	1510.2	1508.8
7.5°	1501.3	1499.9	1489.5	1499.9	1498.4
10°	1486.5	1486.5	1474.7	1485.0	1483.6
12.5°	1465.8	1467.3	1458.4	1465.8	1461.3
15°	1443.5	1445.0	1434.7	1443.5	1437.6
17.5°	1415.4	1418.3	1408.0	1415.4	1410.9
20°	1384.3	1387.2	1376.8	1381.3	1381.3
22.5°	1348.7	1354.6	1342.8	1348.7	1344.2
25°	1311.6	1316.1	1307.2	1313.1	1305.7
27.5°	1271.6	1277.6	1267.2	1271.6	1268.7
30°	1225.7	1234.6	1225.7	1228.6	1227.2
32.5°	1184.2	1191.6	1185.7	1188.6	1187.1
35°	1135.3	1145.6	1141.2	1145.6	1145.6
37.5°	1087.8	1096.7	1095.3	1101.2	1099.7
40°	1038.9	1050.8	1049.3	1055.2	1058.2
42.5°	985.6	1001.9	1006.3	1013.7	1013.7
45°	935.2	951.5	958.9	969.3	970.8
47.5°	883.3	898.1	910.0	924.8	927.8
50°	830.0	846.3	862.6	878.9	883.3
52.5°	773.6	794.4	815.1	832.9	835.9
55°	718.8	742.5	766.2	782.5	788.5
57.5°	662.5	690.6	717.3	735.1	739.6
60°	606.2	635.8	665.5	687.7	692.1
62.5°	551.3	581.0	613.6	638.8	644.7
65°	495.0	529.1	564.7	586.9	592.8
67.5°	443.1	475.7	511.3	538.0	545.4
70°	385.3	419.4	458.0	486.1	495.0
72.5°	329.0	364.6	407.6	438.7	444.6
75°	272.7	311.2	358.7	388.3	395.7
77.5°	217.9	262.3	306.8	339.4	345.3
80°	167.5	211.9	262.3	294.9	300.9
82.5°	121.5	169.0	220.8	252.0	263.8
85°	81.5	130.4	182.3	214.9	226.8
87.5°	51.9	99.3	149.7	183.8	194.2
90°	23.7	71.1	121.5	155.6	166.0
92.5°	20.7	63.7	115.6	148.2	158.6
95°	19.3	57.8	108.2	140.8	151.2
97.5°	17.8	53.4	102.3	133.4	143.8
100°	16.3	47.4	94.9	126.0	134.9
102.5°	14.8	43.0	88.9	118.6	127.5
105°	13.3	37.1	81.5	111.2	121.5
107.5°	11.9	32.6	75.6	105.2	114.1
110°	10.4	28.2	69.7	97.8	108.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	10.4	23.7	63.7	90.4	100.8
115°	8.9	19.3	57.8	84.5	93.4
117.5°	7.4	14.8	51.9	77.1	87.4
120°	7.4	11.9	45.9	71.1	80.0
122.5°	5.9	7.4	40.0	63.7	72.6
125°	5.9	4.4	34.1	57.8	65.2
127.5°	4.4	3.0	28.2	50.4	59.3
130°	4.4	3.0	23.7	44.5	51.9
132.5°	3.0	3.0	17.8	38.5	44.5
135°	3.0	1.5	11.9	31.1	38.5
137.5°	3.0	1.5	7.4	25.2	31.1
140°	1.5	1.5	3.0	19.3	25.2
142.5°	1.5	0.0	0.0	13.3	19.3
145°	1.5	0.0	0.0	7.4	13.3
147.5°	0.0	0.0	0.0	3.0	5.9
150°	0.0	0.0	0.0	0.0	1.5
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	18.17	19.70	18.63	20.14	20.60	19.21	20.74	19.67	21.18	21.64
	3H	19.82	21.21	20.29	21.66	22.17	21.39	22.78	21.86	23.23	23.74
	4H	20.39	21.71	20.88	22.17	22.69	22.35	23.67	22.84	24.14	24.65
	6H	20.77	21.99	21.27	22.47	23.01	23.25	24.47	23.75	24.95	25.49
	8H	20.87	22.04	21.39	22.55	23.09	23.68	24.85	24.20	25.36	25.90
	12H	20.93	22.06	21.45	22.55	23.13	24.14	25.26	24.66	25.76	26.33
4H	2H	18.93	20.25	19.42	20.71	21.23	19.74	21.06	20.24	21.53	22.05
	3H	20.81	21.93	21.31	22.44	22.98	22.14	23.25	22.64	23.77	24.31
	4H	21.51	22.53	22.03	23.05	23.63	23.25	24.27	23.77	24.79	25.37
	6H	22.02	22.92	22.56	23.46	24.05	24.31	25.21	24.86	25.76	26.35
	8H	22.17	23.01	22.72	23.56	24.16	24.83	25.68	25.38	26.22	26.83
	12H	22.27	23.03	22.84	23.61	24.22	25.39	26.15	25.96	26.73	27.34
8H	4H	21.99	22.84	22.54	23.38	23.99	23.51	24.35	24.06	24.90	25.50
	6H	22.66	23.37	23.24	23.96	24.57	24.73	25.44	25.31	26.03	26.64
	8H	22.90	23.54	23.49	24.14	24.76	25.37	26.01	25.97	26.61	27.23
	12H	23.08	23.65	23.68	24.24	24.93	26.08	26.65	26.68	27.24	27.93
12H	4H	22.09	22.85	22.66	23.43	24.04	23.53	24.29	24.10	24.87	25.47
	6H	22.82	23.46	23.42	24.06	24.68	24.78	25.42	25.38	26.02	26.64
	8H	23.14	23.71	23.74	24.30	24.99	25.49	26.05	26.08	26.64	27.33