

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: P242862

Luminaire Tested: S125DRP-S1090D935-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242862
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-S1090D935-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

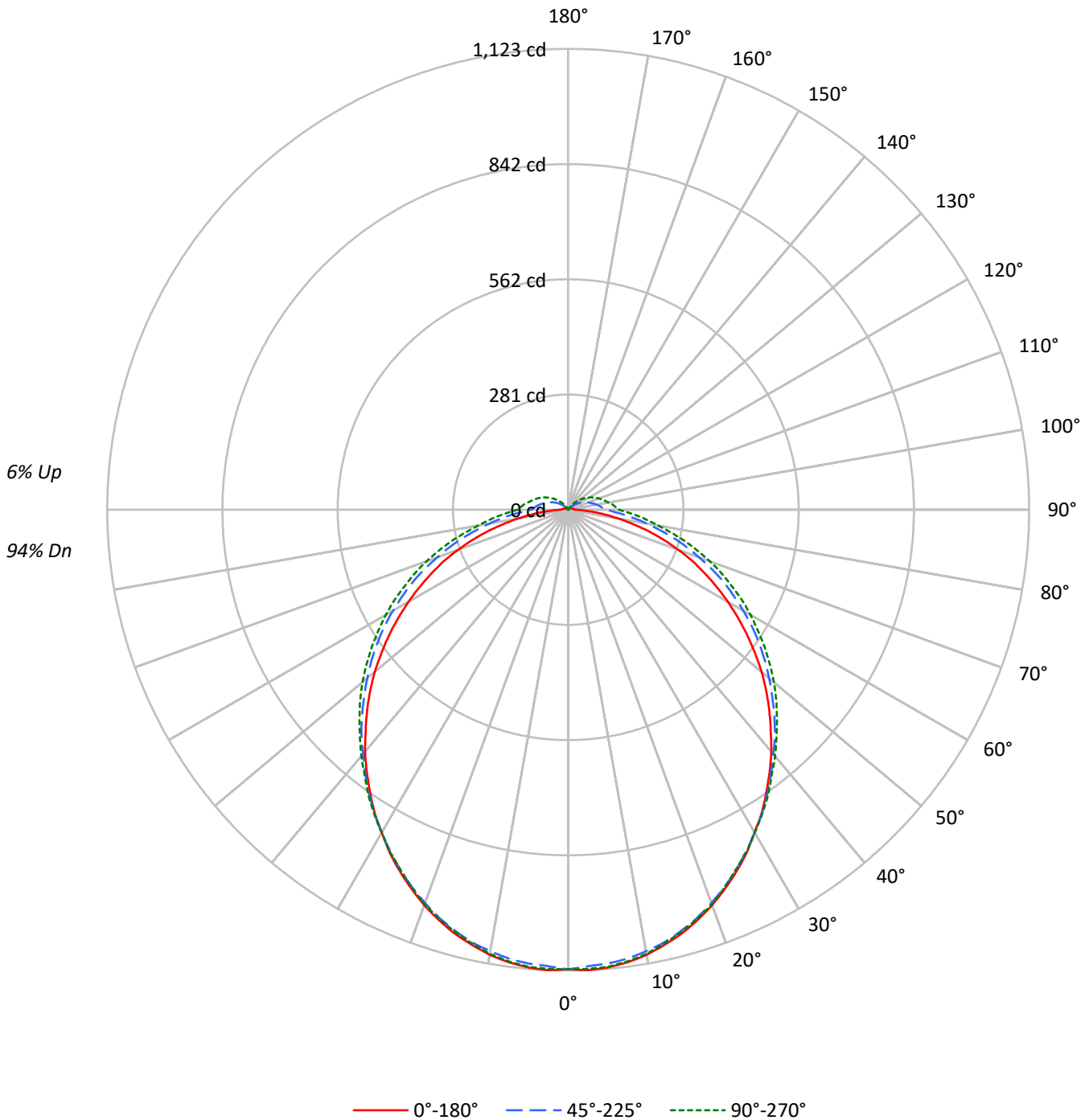
Lumens per Lamp: N/A
Luminaire Lumens: 3469.4 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 34.8
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	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°	7960	7960	7960
5°	7975	7807	7829
10°	7918	7660	7645
15°	7824	7488	7413
20°	7696	7275	7182
25°	7545	7049	6900
30°	7360	6800	6643
35°	7190	6571	6407
40°	7015	6331	6170
45°	6817	6124	5958
50°	6629	5899	5770
55°	6402	5687	5548
60°	6155	5443	5323
65°	5895	5188	5069
70°	5602	4843	4805
75°	5135	4506	4484
80°	4527	4097	4130
85°	3954	3803	3986

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6817 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.0	3.1
10°-20°	300.9	8.7
20°-30°	447.4	12.9
30°-40°	529.8	15.3
40°-50°	547.8	15.8
50°-60°	504.6	14.5
60°-70°	407.9	11.8
70°-80°	272.9	7.9
80°-90°	141.1	4.1
90°-100°	79.5	2.3
100°-110°	58.6	1.7
110°-120°	39.2	1.1
120°-130°	22.2	0.6
130°-140°	9.7	0.3
140°-150°	1.9	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	854.2	24.6
0°-40°	1384.0	39.9
0°-60°	2436.4	70.2
0°-90°	3258.3	93.9
90°-120°	177.3	5.1
90°-150°	211.1	6.1
90°-180°	211.0	6.1
0°-180°	3469.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1120	1120	1120	1120	1120	
5°	1120	1118	1110	1119	1118	106
15°	1069	1070	1063	1069	1065	301
25°	972	975	968	973	967	447
35°	841	849	845	849	849	526
45°	693	705	710	718	719	535
55°	532	550	568	580	584	476
65°	367	392	418	435	439	364
75°	202	231	266	288	293	214
85°	60	97	135	159	168	63
90°	18	53	90	115	123	12
95°	14	43	80	104	112	11
105°	10	27	60	82	90	10
115°	7	14	43	63	69	7
125°	4	3	25	43	48	4
135°	2	1	9	23	28	2
145°	1	0	0	6	10	0
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°	1119.9	1119.9	1119.9	1119.9	1119.9
2.5°	1123.2	1121.0	1113.4	1121.0	1119.9
5°	1119.9	1117.8	1110.1	1118.8	1117.8
7.5°	1112.3	1111.2	1103.5	1111.2	1110.1
10°	1101.3	1101.3	1092.5	1100.2	1099.1
12.5°	1085.9	1087.0	1080.4	1085.9	1082.6
15°	1069.4	1070.5	1062.9	1069.4	1065.0
17.5°	1048.6	1050.8	1043.1	1048.6	1045.3
20°	1025.5	1027.7	1020.0	1023.3	1023.3
22.5°	999.2	1003.6	994.8	999.2	995.9
25°	971.7	975.0	968.4	972.8	967.3
27.5°	942.1	946.5	938.8	942.1	939.9
30°	908.0	914.6	908.0	910.2	909.1
32.5°	877.3	882.8	878.4	880.6	879.5
35°	841.1	848.7	845.4	848.7	848.7
37.5°	805.9	812.5	811.4	815.8	814.7
40°	769.7	778.5	777.4	781.8	784.0
42.5°	730.2	742.2	745.5	751.0	751.0
45°	692.8	704.9	710.4	718.1	719.2
47.5°	654.4	665.4	674.2	685.1	687.3
50°	614.9	627.0	639.0	651.1	654.4
52.5°	573.1	588.5	603.9	617.1	619.3
55°	532.5	550.1	567.7	579.7	584.1
57.5°	490.8	511.7	531.4	544.6	547.9
60°	449.1	471.0	493.0	509.5	512.8
62.5°	408.5	430.4	454.6	473.2	477.6
65°	366.7	392.0	418.3	434.8	439.2
67.5°	328.3	352.5	378.8	398.6	404.1
70°	285.5	310.7	339.3	360.1	366.7
72.5°	243.8	270.1	301.9	325.0	329.4
75°	202.0	230.6	265.7	287.7	293.2
77.5°	161.4	194.3	227.3	251.4	255.8
80°	124.1	157.0	194.3	218.5	222.9
82.5°	90.0	125.2	163.6	186.7	195.4
85°	60.4	96.6	135.1	159.2	168.0
87.5°	38.4	73.6	110.9	136.2	143.8
90°	17.6	52.7	90.0	115.3	123.0
92.5°	15.4	47.2	85.6	109.8	117.5
95°	14.3	42.8	80.2	104.3	112.0
97.5°	13.2	39.5	75.8	98.8	106.5
100°	12.1	35.1	70.3	93.3	99.9
102.5°	11.0	31.8	65.9	87.8	94.4
105°	9.9	27.4	60.4	82.3	90.0
107.5°	8.8	24.2	56.0	78.0	84.5
110°	7.7	20.9	51.6	72.5	80.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.7	17.6	47.2	67.0	74.7
115°	6.6	14.3	42.8	62.6	69.2
117.5°	5.5	11.0	38.4	57.1	64.8
120°	5.5	8.8	34.0	52.7	59.3
122.5°	4.4	5.5	29.6	47.2	53.8
125°	4.4	3.3	25.3	42.8	48.3
127.5°	3.3	2.2	20.9	37.3	43.9
130°	3.3	2.2	17.6	32.9	38.4
132.5°	2.2	2.2	13.2	28.5	32.9
135°	2.2	1.1	8.8	23.1	28.5
137.5°	2.2	1.1	5.5	18.7	23.1
140°	1.1	1.1	2.2	14.3	18.7
142.5°	1.1	0.0	0.0	9.9	14.3
145°	1.1	0.0	0.0	5.5	9.9
147.5°	0.0	0.0	0.0	2.2	4.4
150°	0.0	0.0	0.0	0.0	1.1
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	17.13	18.66	17.58	19.10	19.56	18.17	19.70	18.62	20.14	20.60
	3H	18.78	20.17	19.25	20.62	21.12	20.35	21.74	20.82	22.19	22.69
	4H	19.35	20.66	19.84	21.13	21.65	21.31	22.63	21.80	23.09	23.61
	6H	19.73	20.95	20.23	21.43	21.97	22.21	23.43	22.71	23.91	24.45
	8H	19.83	21.00	20.35	21.51	22.05	22.64	23.81	23.16	24.32	24.86
	12H	19.89	21.01	20.41	21.51	22.08	23.10	24.22	23.62	24.72	25.29
4H	2H	17.89	19.21	18.38	19.67	20.19	18.70	20.02	19.19	20.49	21.01
	3H	19.77	20.88	20.27	21.40	21.94	21.09	22.21	21.60	22.72	23.26
	4H	20.47	21.49	20.99	22.01	22.59	22.21	23.23	22.73	23.75	24.32
	6H	20.98	21.87	21.52	22.42	23.01	23.27	24.17	23.82	24.72	25.31
	8H	21.13	21.97	21.68	22.52	23.12	23.79	24.63	24.34	25.18	25.78
	12H	21.23	21.99	21.80	22.57	23.18	24.35	25.11	24.92	25.69	26.30
8H	4H	20.95	21.79	21.50	22.34	22.94	22.47	23.31	23.02	23.86	24.46
	6H	21.62	22.33	22.20	22.92	23.53	23.69	24.40	24.27	24.99	25.60
	8H	21.86	22.49	22.45	23.10	23.72	24.33	24.97	24.92	25.57	26.19
	12H	22.04	22.60	22.63	23.20	23.88	25.04	25.61	25.64	26.20	26.89
12H	4H	21.05	21.81	21.62	22.39	23.00	22.48	23.25	23.06	23.82	24.43
	6H	21.78	22.42	22.37	23.02	23.64	23.74	24.38	24.33	24.98	25.60
	8H	22.10	22.66	22.69	23.26	23.94	24.44	25.01	25.04	25.60	26.29