

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P334009

Luminaire Tested: **S123DS-S1165D930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334009  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123DS-S1165D930-4F0-1E-UDD-F  
Description: DEFINE 3 DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 1165 LUMENS PER FOOT  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

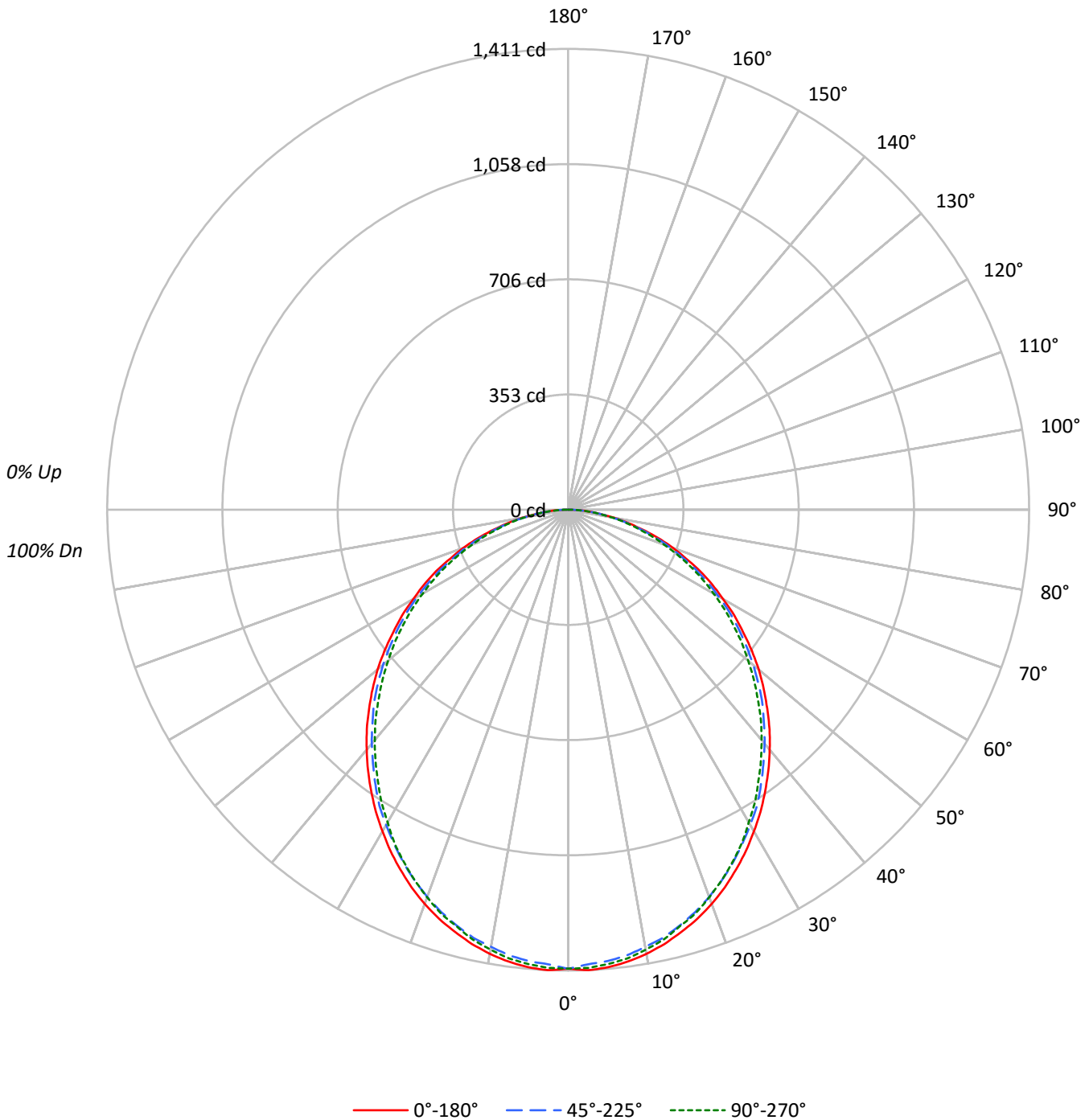
Lumens per Lamp: N/A  
Luminaire Lumens: 3657.4 lumens  
Efficiency: N/A  
Efficacy: 89.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: 25 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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59					59			
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44					44			
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39					39			
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28					28			
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	15127	15127	15127
5°	15197	14989	15092
10°	15095	14858	14950
15°	14919	14691	14717
20°	14714	14450	14464
25°	14437	14164	14136
30°	14132	13847	13742
35°	13814	13512	13337
40°	13481	13142	12938
45°	13114	12802	12490
50°	12748	12383	12040
55°	12268	11950	11588
60°	11784	11446	11083
65°	11357	10896	10557
70°	10726	10269	9813
75°	9798	9449	9046
80°	8839	8461	8387
85°	7756	7460	7163



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.5	3.6
10°-20°	374.1	10.2
20°-30°	552.5	15.1
30°-40°	645.3	17.6
40°-50°	648.7	17.7
50°-60°	569.8	15.6
60°-70°	424.4	11.6
70°-80°	241.5	6.6
80°-90°	68.7	1.9
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°	1059.1	29.0
0°-40°	1704.3	46.6
0°-60°	2922.8	79.9
0°-90°	3657.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3657.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1405	1405	1405	1405	1405	
5°	1406	1400	1387	1399	1397	133
15°	1339	1334	1318	1328	1321	378
25°	1216	1208	1193	1194	1190	560
35°	1051	1044	1028	1021	1015	658
45°	862	857	841	826	820	665
55°	654	652	637	624	618	586
65°	446	440	428	418	414	440
75°	236	231	227	221	218	252
85°	63	60	60	58	58	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1405.3	1405.3	1405.3	1405.3	1405.3
2.5°	1411.3	1406.5	1393.2	1405.3	1404.1
5°	1406.5	1400.5	1387.2	1399.3	1396.8
7.5°	1395.6	1389.6	1376.3	1387.2	1386.0
10°	1381.1	1375.1	1359.4	1370.3	1367.8
12.5°	1361.8	1357.0	1342.5	1349.7	1348.5
15°	1338.8	1334.0	1318.3	1328.0	1320.7
17.5°	1313.5	1307.4	1291.7	1299.0	1296.5
20°	1284.5	1277.2	1261.5	1266.3	1262.7
22.5°	1251.8	1244.6	1228.9	1232.5	1227.7
25°	1215.6	1208.3	1192.6	1193.8	1190.2
27.5°	1178.1	1170.9	1154.0	1155.2	1151.5
30°	1137.0	1131.0	1114.1	1114.1	1105.6
32.5°	1096.0	1087.5	1075.4	1067.0	1063.3
35°	1051.3	1044.0	1028.3	1021.0	1015.0
37.5°	1006.5	996.9	981.2	972.7	969.1
40°	959.4	952.2	935.3	925.6	920.8
42.5°	912.3	903.8	886.9	877.3	872.4
45°	861.5	856.7	841.0	826.5	820.5
47.5°	812.0	804.8	790.3	775.8	770.9
50°	761.3	755.2	739.5	726.2	719.0
52.5°	708.1	704.5	687.5	676.7	669.4
55°	653.7	652.5	636.8	623.5	617.5
57.5°	603.0	598.1	586.0	574.0	566.7
60°	547.4	546.2	531.7	520.8	514.8
62.5°	497.8	494.2	479.7	468.8	465.2
65°	445.9	439.8	427.8	418.1	414.5
67.5°	390.3	385.5	375.8	367.3	362.5
70°	340.8	333.5	326.3	317.8	311.8
72.5°	288.8	284.0	275.5	268.3	265.8
75°	235.6	230.8	227.2	221.1	217.5
77.5°	188.5	186.1	181.3	176.4	176.4
80°	142.6	139.0	136.5	135.3	135.3
82.5°	97.9	97.9	97.9	95.5	94.3
85°	62.8	60.4	60.4	58.0	58.0
87.5°	31.4	27.8	26.6	25.4	25.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)